Table 1 - Summary of Analytical Data, Sediment

Location ID	Catch Basin # 1	Catch Basin # 2	Catch Basin # 3	Catch Basin # 4	Catch Basin # 5	Catch Basin # 6	CB01-CB03	CB04-CB06	DUST
Sample ID	CB-1	CB-2	CB-3	CB-4	CB-5	CB-6	COMP01-CB1-3-100415	COMP02-CB4-6-100415	DUST-100720
Date Sampled	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/15/2010	4/15/2010	7/20/2010
Depth Sampled (feet)	NA	NA	NA	NA	NA	NA	10.5	10	Surface
Sample By	Evergreen	Evergreen	Evergreen	Evergreen	Evergreen	Evergreen	ENW	ENW	ENW
Location	Catch Basin # 1	Catch Basin # 2	Catch Basin # 3	Catch Basin # 4	Catch Basin # 5	Catch Basin # 6	CB01, CB02, CB03	CB04, CB05, CB06	Dust layer in traler along northern edge of FDD&S facility
Constituent of Interest	mg/Kg (ppm)								
Semi-Volatile Organic Constituents (SVOCs)									
Polyaromatic Hydrocarbons									
Naphthalene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	<0.2 (ND)	0.22	NA
Acenaphthene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	<0.2 (ND)	**0.60**	NA
Fluorene	<6.7 (ND)	NA	<6.7 (ND)	**6.73**	NA	<6.7 (ND)	<0.2 (ND)	**1.3**	NA
Anthracene	<6.7 (ND)	NA	<6.7 (ND)	**16.7**	NA	<6.7 (ND)	0.59	**2.3**	NA
Fluoranthene	<6.7 (ND)	NA	**16.3**	**18.7**	NA	<6.7 (ND)	**4.1**	**28**	NA
Pyrene	<6.7 (ND)	NA	**8.9**	**12.5**	NA	<6.7 (ND)	**2.8**	**17**	NA
Benz[a]anthracene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	0.90	**3.9**	NA
Chrysene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	**2.4**	**11**	NA
Benzo[b]fluoranthene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	2.00	7.9	NA
Benzo[k]fluoranthene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	0.57	2.5	NA
Benzo[a]pyrene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	0.68	**2.0**	NA
Indeno[1,2,3-cd]pyrene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	**0.69**	**1.8**	NA
Dibenz[a,h]anthracene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	<0.2 (ND)	0.30	NA
Benzo[g,h,i]perylene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	**0.55**	**1.4**	NA
Polychlorinated Biphenyls (PCBs)									
Aroclor 1016	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1221	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1232	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1242	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1248	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1254	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1260	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Total PCBs (total as Aroclors)	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA

Table 1 - Summary of Analytical Data, Sediment

Location ID	Catch Basin # 1	Catch Basin # 2	Catch Basin # 3	Catch Basin # 4	Catch Basin # 5	Catch Basin # 6	CB01-CB03	CB04-CB06	DUST
Sample ID	CB-1	CB-2	CB-3	CB-4	CB-5	CB-6	COMP01-CB1-3-100415	COMP02-CB4-6-100415	DUST-100720
Date Sampled	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/15/2010	4/15/2010	7/20/2010
Depth Sampled (feet)	NA	NA	NA	NA	NA	NA	10.5	10	Surface
Sample By	Evergreen	Evergreen	Evergreen	Evergreen	Evergreen	Evergreen	ENW	ENW	ENW
Location	Catch Basin # 1	Catch Basin # 2	Catch Basin # 3	Catch Basin # 4	Catch Basin # 5	Catch Basin # 6	CB01, CB02, CB03	CB04, CB05, CB06	Dust layer in traler along northern edge of FDD&S facility
Constituent of Interest	mg/Kg (ppm)								
Metals									
Cadmium	**2.25**	NA	**2.75**	**3.47**	NA	<1 (ND)	**3.84**	**5.03**	**117**
Chromium (total)	NA	NA	NA	NA	NA	NA	43.0	54.6	71.1
Copper	**206**	NA	**172**	**202**	NA	**85.5**	**193**	**278**	**328**
Lead	**226**	NA	**176**	**283**	NA	**66.6**	**92.6**	**152**	**264**
Zinc	**447**	NA	**365**	**488**	NA	**236**	**455**	**636**	**1560**
Total Petroleum Hydrocarbons									
DRO	NA	NA	NA	NA	NA	NA	4500 x	4400 x	NA
RRO	NA	NA	NA	NA	NA	NA	9000	12000	NA

Notes:

NP = not present based on NWTPH-HCID (hydrocarbon identification) analysis
ND = not detected at or above laboratory method reporting limits
— = not analyzed or not applicable.
NE = not established.
mk/Kg = milligrams per kilogram
DRO = diesel-range organics.
RRO = residual-range organics.
JSCS = Portland Harbor Joint Source Control Strategy, ODEQ and EPA, December 2005
Bolded concentrations exceed JSCS screening levels (indicated with a Y)
(Y) indicates analyte not detected, but detection limit is above screening concentration.

* Portland Harbor RI/FS, June 24, 2004, Table A6-2,
Analytes, Analytical Concentration Goals and Method
Reporting Limits for Sediment Samples

ACG = Analytical Concentration Goals
MDL = Method Detection Limit
MRL = Method Reporting Limit
PQL = Practible Quanitation Limit
tbd = to be determined

Table 1 - Summary of Analytical Data, Sediment

Location ID / Sample ID / Date Sampled / Depth Sampled (feet) / Sample By / Location	Maximum Detected Sediment Concentration (since SWPCP Implementation)	Lowest JSCS Screening Level or ODEQ Sediment Bioaccumulation Screening Level	Background Concentrations (Sediment)	COPC?	Generally Accepted and Achievable Laboratory Detection Limits prepared by the Lower Willamette Group* (all in mg/Kg)			
Constituent of Interest	mg/Kg (ppm)			Y / N	ACG	MDL	MRL	PQL
	Semi-Volatile Organic Constituents (SVOCs)							
	Polyaromatic Hydrocarbons							
Naphthalene	0.22	0.561	---	N	0.024	tbd	0.02	0.002
Acenaphthene	**0.6**	0.3	---	Y	0.072	tbd	0.02	0.002
Fluorene	**1.3**	0.536	---	Y	0.048	tbd	0.02	0.002
Anthracene	**2.3**	0.845	---	Y	0.36	tbd	0.02	0.002
Fluoranthene	**28**	2.23	---	Y	0.048	tbd	0.02	0.002
Pyrene	**17**	1.9	---	Y	0.036	tbd	0.02	0.002
Benz[a]anthracene	**3.9**	1.05	---	Y	0.000038	tbd	0.005	0.002
Chrysene	**11**	1.29	---	Y	0.0038	tbd	0.005	0.002
Benzo[b]fluoranthene	7.9	NE	---	N	0.000038	tbd	0.005	0.004
Benzo[k]fluoranthene	2.5	13	---	N	0.00038	tbd	0.005	0.004
Benzo[a]pyrene	**2**	1.45	---	Y	0.0000038	tbd	0.005	0.002
Indeno[1,2,3-cd]pyrene	**1.8**	0.1	---	Y	0.000038	tbd	0.005	0.002
Dibenz[a,h]anthracene	0.3	1.3	---	N	0.0000038	tbd	0.005	0.002
Benzo[g,h,i]perylene	**1.4**	0.3	---	Y	NE	tbd	0.005	0.002
	Polychlorinated Biphenyls (PCBs)							
Aroclor 1016	<0.05 (ND)	0.42	---	N	NE	tbd	0.004	0.01
Aroclor 1221	<0.05 (ND)	NE	---	N	NE	tbd	0.004	0.01
Aroclor 1232	<0.05 (ND)	NE	---	N	NE	tbd	0.004	0.01
Aroclor 1242	<0.05 (ND)	0.002	---	(Y)	0.000004	tbd	0.004	0.01
Aroclor 1248	<0.05 (ND)	0.004	---	(Y)	0.000004	tbd	0.004	0.01
Aroclor 1254	<0.05 (ND)	0.01	---	(Y)	0.000004	tbd	0.004	0.01
Aroclor 1260	<0.05 (ND)	0.2	---	N	0.000004	tbd	0.004	0.01
Total PCBs (total as Aroclors)	<0.05 (ND)	4.80E-05	---	(Y)	NE	NE	NE	NE

Table 1 - Summary of Analytical Data, Sediment

Location ID **Sample ID** **Date Sampled** **Depth Sampled (feet)** **Sample By** **Location**	Maximum Detected Sediment Concentration (since SWPCP Implementation)	Lowest JSCS Screening Level or ODEQ Sediment Bioaccumulation Screening Level	Background Concentrations (Sediment)	COPC?	Generally Accepted and Achievable Laboratory Detection Limits prepared by the Lower Willamette Group* (all in mg/Kg)			
Constituent of Interest	mg/Kg (ppm)			Y / N	ACG	MDL	MRL	PQL
Metals								
Cadmium	**5.03**	1	0.5	Y	NE	0.006	0.02	NE
Chromium (total)	54.6	111	30	N	NE	0.04	0.2	NE
Copper	**278**	10	12	Y	NE	0.07	0.1	NE
Lead	**152**	17	13.3	Y	NE	0.02	0.05	NE
Zinc	**636**	3	53	Y	NE	0.1	0.5	NE
Total Petroleum Hydrocarbons								
DRO	4500	NE	---	N	NE	7.1	25	NE
RRO	12000	NE	---	N	NE	4.6	100	NE

Notes:

NP = not present based on NWTPH-HCID (hydrocarbon id
ND = not detected at or above laboratory method reporting
— = not analyzed or not applicable.
NE = not established.
mk/Kg = milligrams per kilogram

DRO = diesel-range organics.

RRO = residual-range organics.
JSCS = Portland Harbor Joint Source Control Strategy, OI
Bolded concentrations exceed JSCS screening levels (ind
(Y) indicates analyte not detected, but detection limit is ab

* Portland Harbor RI/FS, June 24, 2004, Table A6-2, Analytes, Analytical Concentration Goals and Method Reporting Limits for Sediment Samples

ACG = Analytical Concentration Goals
MDL = Method Detection Limit
MRL = Method Reporting Limit
PQL = Practible Quanitation Limit
tbd = to be determined

Table 2 - Summary of Analytical Results, Storm Water

Location ID		SP01		SP01		SP01		SP01		SP01	
Sample ID		SP01-071116		SP-1		SP-1		0SP01-080520		0F01-090513	
Date Sampled		11/16/2007		11/28/2007		3/26/2008		5/20/2008		5/13/2009	
		Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit
Constituent of Interest	Note	µg/L (ppb)									
Semi-Volatile Organic Constituents (SVOCs)											
Haogenated Compounds											
Dichlorobenzene, 1,2-	nc, v	---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Dichlorobenzene, 1,3-		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Dichlorobenzene, 1,4-		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Trichlorobenzene, 1,2,4-		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Hexachlorobenzene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
2-Chloronaphthalene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Hexachloroethane		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Hexachlorobutadiene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Hexachlorocyclopentadiene		---	---	---	---	---	---	---	---	<1.5 (ND)	*1.5*
2,2'-oxybis(1-chloropropane)		---	---	---	---	---	---	---	---	---	---
Bis-(2-chloroethoxy) methane		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Bis-(2-chloroethyl) ether		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
4-Chlorophenyl-phenyl ether		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
4-bromophenyl-phenyl ether		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
3-3'-Dichlorobenzidine		---	---	---	---	---	---	---	---	---	---
4-Chloroaniline		---	---	---	---	---	---	---	---	<1.5 (ND)	*1.5*
Organonitrogen Compounds											
Nitrobenzene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Aniline		---	---	---	---	---	---	---	---	---	---
2-Nitroaniline		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
3-Nitroaniline		---	---	---	---	---	---	---	---	<1.5 (ND)	*1.5*
4-Nitroaniline		---	---	---	---	---	---	---	---	<5 (ND)	*5*
N-Nitrosodimethylamine		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
N-Nitroso-di-n-propylamine		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
N-Nitrosodiphenylamine		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
2,4-Dinitrotoluene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
2,6-Dinitrotoluene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Carbazole		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Oxygen-Containing Compounds											
Benzoic Acid		---	---	---	---	---	---	---	---	<50 (ND)	*50*
Benzyl Alcohol		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Dibenzofuran		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Isophorone		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Phenols and Substituted Phenols											
Phenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2-Methylphenol (o-Cresol)		---	---	---	---	---	---	---	---	<5 (ND)	*5*
4-Methylphenol (o-Cresol)		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4-Dimethylphenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2-Chlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4-Dichlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4,5-Trichlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4,6-Trichlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,3,4,6-Tetrachlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
Pentachlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
4-Chloro-3-methylphenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2-Nitrophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
4-Nitrophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4-Dinitrophenol		---	---	---	---	---	---	---	---	<15 (ND)	*15*
Methyl-4,6-Dinitrophenol 2-		---	---	---	---	---	---	---	---	<15 (ND)	*15*
Phthalate Esters											
Dimethylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*
Diethylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*
Di-n-butylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*
Butylbenzylphthalate	c, v	<1 (ND)	*1*	0.59	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*
Di-n-octylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	0.9	*0.5*
Bis[2-ethylhexyl]phthalate	c, nv	<10 (ND)	*10*	**2.9**	*0.5*	**3.1 J, fb**	*0.5*	**3.1 fbs**	*0.5*	<5 (ND)	*5*
Polyaromatic Hydrocarbons											
Naphthalene	nc, v	<1 (ND)	*1*	0.15	*0.05*	<0.05 (ND)	*0.05*	**0.53**	*0.05*	0.055	*0.05*
2-Methylnaphthalene		<1 (ND)	*1*		*0.05*	<0.05 (ND)	*0.05*		*0.05*	<0.5 (ND)	*0.5*
Acenaphthylene	nc, v	<1 (ND)	*1*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	0.07	*0.05*	<0.05 (ND)	*0.05*
Acenaphthene	c, nv	<1 (ND)	*1*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Fluorene	c, nv	<1 (ND)	*1*	0.11	*0.05*	<0.05 (ND)	*0.05*	0.093	*0.05*	<0.05 (ND)	*0.05*
Phenanthrene	c, nv	<1 (ND)	*1*	**0.52**	*0.05*	0.13	*0.05*	**0.29**	*0.05*	0.051	*0.05*
Anthracene	c, nv	<1 (ND)	*1*	0.053	*0.05*	<0.05 (ND)	*0.05*	0.064	*0.05*	<0.05 (ND)	*0.05*
Fluoranthene	nc, nv	<1 (ND)	*1*	**0.45**	*0.05*	**0.24**	*0.05*	**0.23**	*0.05*	0.066	*0.05*
Pyrene	c, nv	<1 (ND)	*1*	**0.38**	*0.05*	0.18	*0.05*	0.15	*0.05*	0.057	*0.05*
Benz[a]anthracene	c, nv	<1 (ND)	*1*	**0.14**	*0.05*	**0.062**	*0.05*	**0.082**	*0.05*	<0.05 (ND)	*0.05*
Chrysene	nc, nv	<1 (ND)	*1*	**0.30**	*0.05*	**0.018**	*0.05*	**0.18**	*0.05*	<0.05 (ND)	*0.05*
Benzo[b]fluoranthene	nc, v	<1 (ND)	*1*	**0.26**	*0.05*	**0.16**	*0.05*	**0.13**	*0.05*	<0.05 (ND)	*0.05*
Benzo[k]fluoranthene	c, nv	<1 (ND)	*1*	**0.081**	*0.05*	**0.057**	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Benzo[a]pyrene	c, nv	<1 (ND)	*1*	**0.15**	*0.05*	**0.067**	*0.05*	**0.056**	*0.05*	<0.05 (ND)	*0.05*
Indeno[1,2,3-cd]pyrene	c, nv	<1 (ND)	*1*	**0.15**	*0.05*	**0.080**	*0.05*	**0.056**	*0.05*	<0.05 (ND)	*0.05*
Dibenz[a,h]anthracene	c, nv	<1 (ND)	*1*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND) jl	*0.05*
Benzo[g,h,i]perylene	nc, nv	<1 (ND)	*1*	0.15	*0.05*	0.091	*0.05*	0.060	*0.05*	<0.05 (ND) jl	*0.05*

Table 2 - Summary of Analytical Results, Storm Water

Location ID		SP01		SP01		SP01		SP01		SP01	
Sample ID		**SP01-071116**		**SP-1**		**SP-1**		**0SP01-080520**		**0F01-090513**	
Date Sampled		**11/16/2007**		**11/28/2007**		**3/26/2008**		**5/20/2008**		**5/13/2009**	
		Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1221	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1232	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1242	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1248	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1254	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1260	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1262	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Metals											
Cadmium	c, nv	<1 (ND)	*1*	**1.34**	*1*	**0.80**	*0.1*	**0.86**	*0.2*	<1 (ND)	*1*
Chromium (total)	nc, nv	1.92	*1*	5.32	*1*	3.13	*1*	98.7	*1*	2.77	*1*
Copper	c, nv	**21.7**	*1*	**74.1**	*1*	**30.8**	*1*	**48.1**	*1*	**14.5**	*1*
Lead	nc, nv	**8.84**	*1*	**25.4**	*1*	**24.2**	*1*	**14.9**	*0.5*	**6.28**	*1*
Nickel	nc, nv	2.16	*1*	5.22	*1*	2.77	*1*	3.62	*1*	2.74	*1*
Zinc	nc, nv	**321**	*1*	**457**	*1*	**299**	*1*	**395**	*1*	**1520**	*1*
Total Petroleum Hydrocarbons											
DRO	nc, nv	310	50	650	50	360 x	50	940	50	290 X	50
RRO	nc, nv	590	250	1100	250	1220	250	2000	250	<250 (ND)	250

Notes:

ND = not detected at or above laboratory method reporting limits

NE = not established.

µg/L = micrograms per Liter

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

JSCS = Portland Harbor Joint Source Control Strategy, ODEQ and EPA, December 2005

x = Chromatogram pattern is not indicative of diesel

J = Sample is out of control limits, and concentration is considered an estimate

fb = analyte found in method blank, and should be considered an estimate.

fbs = analyte found in method blank. A small percentage of the material present may be due to laboratory contamination.

(1) based on human health exosure to tap water

(2) as chromium VI to remain conservative

Table 2 - Summary of Analytical Results, Storm Water

Location ID / Sample ID / Date Sampled		Maximum Detected Storm Water Concetnration	Geometric Mean (1/2 MDL used if ND)	Lowest JSCS Screening Value	Background	1200-Z Benchark	RBDM Screening-Level RBCs (1)	EPA Region VI SSLs (1)
Constituent of Interest	Note	µg/L (ppb)		µg/L (ppb)				
Semi-Volatile Organic Constituents (SVOCs)								
Haogenated Compounds								
Dichlorobenzene, 1,2-	nc, v	ND	---	14	---	---	50	370
Dichlorobenzene, 1,3-		ND	---	71	---	---	15	---
Dichlorobenzene, 1,4-		ND	---	0.5	---	---	0.48	0.43
Trichlorobenzene, 1,2,4-		ND	---	7	---	---	---	8.2
Hexachlorobenzene		ND	---	0.000029	---	---	---	0.042
2-Chloronaphthalene		ND	---	160	---	---	---	2900
Hexachloroethane		ND	---	0.33	---	---	---	4.8
Hexachlorobutadiene		ND	---	0.86	---	---	---	0.86
Hexachlorocyclopentadiene		ND	---	5.2	---	---	---	220
2,2'-oxybis(1-chloropropane)		---	---	NE	---	---	---	---
Bis-(2-chloroethoxy) methane		ND	---	NE	---	---	---	110
Bis-(2-chloroethyl) ether		ND	---	0.01	---	---	---	0.012
4-Chlorophenyl-phenyl ether		ND	---	NE	---	---	---	---
4-bromophenyl-phenyl ether		ND	---	NE	---	---	---	---
3-3'-Dichlorobenzidine		---	---	0.0028	---	---	0.13	0.15
4-Chloroaniline		ND	---	150	---	---	---	1.2
Organonitrogen Compounds								
Nitrobenzene		ND	---	3.4	---	---	---	3.4
Aniline		---	---	12	---	---	---	12
2-Nitroaniline		ND	---	110	---	---	---	---
3-Nitroaniline		ND	---	3.2	---	---	---	3.2
4-Nitroaniline		ND	---	3.2	---	---	---	3.2
N-Nitrosodimethylamine		ND	---	0.0013	---	---	---	0.00042
N-Nitroso-di-n-propylamine		ND	---	0.0096	---	---	---	---
N-Nitrosodiphenylamine		ND	---	0.6	---	---	---	14
2,4-Dinitrotoluene		ND	---	0.34	---	---	---	73
2,6-Dinitrotoluene		ND	---	36	---	---	0.0035	37
Carbazole		ND	---	3.4	---	---	---	---
Oxygen-Containing Compounds								
Benzoic Acid		ND	---	42	---	---	---	150,000
Benzyl Alcohol		ND	---	8.6	---	---	---	18,000
Dibenzofuran		ND	---	3.7	---	---	---	---
Isophorone		ND	---	71	---	---	---	71
Phenols and Substituted Phenols								
Phenol		ND	---	2,560	---	---	---	11,000
2-Methylphenol (o-Cresol)		ND	---	13	---	---	---	1,800
4-Methylphenol (o-Cresol)		ND	---	180	---	---	---	180
2,4-Dimethylphenol		ND	---	85	---	---	---	730
2-Chlorophenol		ND	---	15	---	---	---	180
2,4-Dichlorophenol		ND	---	29	---	---	---	110
2,4,5-Trichlorophenol		ND	---	360	---	---	---	3,700
2,4,6-Trichlorophenol		ND	---	0.24	---	---	5.5	6.1
2,3,4,6-Tetrachlorophenol		ND	---	1,100	---	---	---	1,100
Pentachlorophenol		ND	---	0.3	---	---	0.47	0.56
4-Chloro-3-methylphenol		ND	---	NE	---	---	---	---
2-Nitrophenol		ND	---	150	---	---	---	---
4-Nitrophenol		ND	---	150	---	---	---	---
2,4-Dinitrophenol		ND	---	73	---	---	---	73
Methyl-4,6-Dinitrophenol 2-		ND	---	28	---	---	---	---
Phthalate Esters								
Dimethylphthalate	c, v	ND	0.30	3	--	--	--	370000
Diethylphthalate	c, v	ND	0.30	3	--	--	--	29000
Di-n-butylphthalate	c, v	ND	0.30	3	--	--	--	3700
Butylbenzylphthalate	c, v	ND	0.37	3	--	--	--	7300
Di-n-octylphthalate	c, v	0.9	0.34	3	--	--	--	---
Bis[2-ethylhexyl]phthalate	c, nv	**3.1 J, fb**	**3.87**	0.22	--	--	4.1	4.8
Polyaromatic Hydrocarbons								
Naphthalene	nc, v	**0.53**	0.10	0.2	---	---	6.2	6.2
2-Methylnaphthalene		1	#NUM!	0.2	---	---	---	
Acenaphthylene	nc, v	ND	<0.06 (ND)	0.2	---	---	---	---
Acenaphthene	c, nv	ND	<0.05 (ND)	0.2	---	---	370	370
Fluorene	c, nv	0.11	0.09	0.2	---	---	240	240
Phenanthrene	c, nv	**0.52**	**0.22**	0.2	---	---	---	---
Anthracene	c, nv	0.064	0.06	0.2	---	---	1800	1800
Fluoranthene	nc, nv	**0.45**	**0.24**	0.2	---	---	1500	1500
Pyrene	c, nv	**0.38**	0.20	0.2	---	---	1100	180
Benz[a]anthracene	c, nv	**0.14**	**0.10**	0.0018	---	---	0.078	0.029
Chrysene	nc, nv	**0.30**	**0.10**	0.0018	---	---	7.8	2.9
Benzo[b]fluoranthene	nc, v	**0.26**	**0.15**	0.0018	---	---	0.078	0.029
Benzo[k]fluoranthene	c, nv	**0.081**	**0.07**	0.0018	---	---	0.78	0.29
Benzo[a]pyrene	c, nv	**0.15**	**0.09**	0.0018	---	---	0.0078	0.0029
Indeno[1,2,3-cd]pyrene	c, nv	**0.15**	**0.10**	0.0018	---	---	0.078	0.029
Dibenz[a,h]anthracene	c, nv	ND	<0.05 (ND)	0.0018	---	---	0.0078	0.0029
Benzo[g,h,i]perylene	nc, nv	0.15	0.10	0.2	---	---	---	---

Table 2 - Summary of Analytical Results, Storm Water

Location ID / Sample ID / Date Sampled		Maximum Detected Storm Water Concetnration	Geometric Mean (1/2 MDL used if ND)	Lowest JSCS Screening Value	Background	1200-Z Benchark	RBDM Screening-Level RBCs (1)	EPA Region VI SSLs (1)
Polychlorinated Biphenyls (PCBs)								
Aroclor 1016	c, nv	ND	<0.01 (ND)	0.96	---	---	0.96	0.96
Aroclor 1221	c, nv	ND	<0.01 (ND)	0.28	---	---	0.028	0.034
Aroclor 1232	c, nv	ND	<0.01 (ND)	0.58	---	---	0.028	0.034
Aroclor 1242	c, nv	ND	<0.01 (ND)	0.053	---	---	0.028	0.034
Aroclor 1248	c, nv	ND	<0.01 (ND)	0.081	---	---	0.028	0.034
Aroclor 1254	c, nv	ND	<0.01 (ND)	0.033	---	---	0.028	0.034
Aroclor 1260	c, nv	ND	<0.01 (ND)	94	---	---	0.028	0.034
Aroclor 1262	c, nv	ND	<0.01 (ND)	NE	---	---	---	---
Metals								
Cadmium	c, nv	**1.34**	**0.75**	0.094	<1	---	---	18
Chromium (total)	nc, nv	5.32	6.14	100	1	---	---	110
Copper	c, nv	**74.1**	32.2	2.7	9	100		1400
Lead	nc, nv	**25.4**	13.8	0.54	13.3	400		15
Nickel	nc, nv	5.22	3.15	NE	5.5	---		730
Zinc	nc, nv	**1520**	483	33	38	600		11000
Total Petroleum Hydrocarbons								
DRO	nc, nv	650	381	NE	---	10000	---	---
RRO	nc, nv	1220	667	NE	---			

Notes:

ND = not detected at or above laboratory method re

NE = not established.

µg/L = micrograms per Liter

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

JSCS = Portland Harbor Joint Source Control Strat

x = Chromatogram pattern is not indicative of diese

J = Sample is out of control limits, and concentratio

fb = analyte found in method blank, and should be

fbs = analyte found in method blank. A small perce

(1) based on human health exosure to tap water

(2) as chromium VI to remain conservative

Table 3 - Summary of Detected Constituents in Storm Water

Location ID		SP01		SP01		SP01		SP01		SP01		Maximum Detected Storm Water Concetnration	Geometric Mean (1/2 MDL used if ND)	Lowest JSCS Screening Value	Background	1200-Z Benchark	RBDM Screening-Level RBCs (1)	EPA Region VI SSLs (1)
Sample ID		SP01-071116		SP-1		SP-1		0SP01-080520		0F01-090513								
Date Sampled		11/16/2007		11/28/2007		3/26/2008		5/20/2008		5/13/2009								
		Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit							
Constituent of Interest	Note	µg/L (ppb)										µg/L (ppb)		µg/L (ppb)				
Phthalate Esters																		
Di-n-octylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	0.9	*0.5*	0.9	0.34	3	--	--	--	---
Bis[2-ethylhexyl]phthalate	c, nv	<10 (ND)	*10*	**2.9**	*0.5*	**3.1 J, fb**	*0.5*	**3.1 fbs**	*0.5*	<5 (ND)	*5*	**3.1 J, fb**	**3.87**	0.22	--	--	4.1	4.8
Polyaromatic Hydrocarbons																		
Naphthalene	nc, v	<1 (ND)	*1*	0.15	*0.05*	<0.05 (ND)	*0.05*	**0.53**	*0.05*	0.055	*0.05*	**0.53**	0.10	0.2	---	---	6.2	6.2
Fluorene	c, nv	<1 (ND)	*1*	0.11	*0.05*	<0.05 (ND)	*0.05*	0.093	*0.05*	<0.05 (ND)	*0.05*	0.11	0.09	0.2	---	---	240	2.40E+02
Phenanthrene	c, nv	<1 (ND)	*1*	**0.52**	*0.05*	0.13	*0.05*	**0.29**	*0.05*	0.051	*0.05*	**0.52**	**0.22**	0.2	---	---	---	---
Anthracene	c, nv	<1 (ND)	*1*	0.053	*0.05*	<0.05 (ND)	*0.05*	0.064	*0.05*	<0.05 (ND)	*0.05*	0.064	0.06	0.2	---	---	1800	1.80E+03
Fluoranthene	nc, nv	<1 (ND)	*1*	**0.45**	*0.05*	**0.24**	*0.05*	**0.23**	*0.05*	0.066	*0.05*	**0.45**	**0.24**	0.2	---	---	1500	1.50E+03
Pyrene	c, nv	<1 (ND)	*1*	**0.38**	*0.05*	0.18	*0.05*	0.15	*0.05*	0.057	*0.05*	**0.38**	0.20	0.2	---	---	1100	1.80E+02
Benz[a]anthracene	c, nv	<1 (ND)	*1*	**0.14**	*0.05*	**0.062**	*0.05*	**0.082**	*0.05*	<0.05 (ND)	*0.05*	**0.14**	**0.10**	0.0018	---	---	0.078	2.90E-02
Chrysene	nc, nv	<1 (ND)	*1*	**0.30**	*0.05*	**0.018**	*0.05*	**0.18**	*0.05*	<0.05 (ND)	*0.05*	**0.30**	**0.10**	0.0018	---	---	7.8	2.9
Benzo[b]fluoranthene	nc, v	<1 (ND)	*1*	**0.26**	*0.05*	**0.16**	*0.05*	**0.13**	*0.05*	<0.05 (ND)	*0.05*	**0.26**	**0.15**	0.0018	---	---	0.078	2.90E-02
Benzo[k]fluoranthene	c, nv	<1 (ND)	*1*	**0.081**	*0.05*	**0.057**	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	**0.081**	**0.07**	0.0018	---	---	0.78	2.90E-01
Benzo[a]pyrene	c, nv	<1 (ND)	*1*	**0.15**	*0.05*	**0.067**	*0.05*	**0.056**	*0.05*	<0.05 (ND)	*0.05*	**0.15**	**0.09**	0.0018	---	---	0.0078	2.90E-03
Indeno[1,2,3-cd]pyrene	c, nv	<1 (ND)	*1*	**0.15**	*0.05*	**0.080**	*0.05*	**0.056**	*0.05*	<0.05 (ND)	*0.05*	**0.15**	**0.10**	0.0018	---	---	0.078	2.90E-02
Benzo[g,h,i]perylene	nc, nv	<1 (ND)	*1*	0.15	*0.05*	0.091	*0.05*	0.060	*0.05*	<0.05 (ND) jl	*0.05*	0.15	0.10	0.2	---	---	---	---
Total PAHs (detected)				3.044		1.135		2.091		0.229								
Metals																		
Cadmium	c, nv	<1 (ND)	*1*	**1.34**	*1*	**0.80**	*0.1*	**0.86**	*0.2*	<1 (ND)	*1*	**1.34**	**0.75**	0.094	<1	---	---	1.80E+01
Chromium (total)	nc, nv	1.92	*1*	5.32	*1*	3.13	*1*	98.7	*1*	2.77	*1*	5.32	6.14	100	1	---	---	110 (2)
Copper	c, nv	**21.7**	*1*	**74.1**	*1*	**30.8**	*1*	**48.1**	*1*	**14.5**	*1*	**74.1**	32.2	2.7	9	100		1.40E+03
Lead	nc, nv	**8.84**	*1*	**25.4**	*1*	**24.2**	*1*	**14.9**	*0.5*	**6.28**	*1*	**25.4**	13.8	0.54	13.3	400		1.50E+01
Nickel	nc, nv	2.16	*1*	5.22	*1*	2.77	*1*	3.62	*1*	2.74	*1*	5.22	3.15	NE	5.5	---		7.30E+02
Zinc	nc, nv	**321**	*1*	**457**	*1*	**299**	*1*	**395**	*1*	**1520**	*1*	**1520**	483	33	38	600		1.10E+04
Total Petroleum Hydrocarbons																		
DRO	nc, nv	310	50	650	50	360 x	50	940	50	290 X	50	650	381	NE	---	10000	---	---
RRO	nc, nv	590	250	1100	250	1220	250	2000	250	<250 (ND)	250	1220	667	NE	---			

Notes:

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RRO = residual-range organics.

JSCS = Portland Harbor Joint Source Control Strategy, ODEQ and EPA, December 2005

x = Chromatogram pattern is not indicative of diesel

J = Sample is out of control limits, and concentration is considered an estimate

Table 4 - Summary of Analytical Data, DUST SPLP Sample

Location	Sample ID	Depth	Date	Leachable Metals					
				Cadmium	Chromium	Copper	Lead	Nickel	Zinc
				(mg/L)					
Storage Trailer, North Proeprty Margin	DUST01-100720	Surface	7/20/2010	0.55	<0.1 ND	1.05	<0.1 ND	0.11	10.0
RCRA[1] Toxicity Characteristic				1.0	5.0	---	5.0	---	---

mg/L: milligrams per Liter

[1] Resource Conservation and Recovery Act, 1976

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

AMTEST LABORATORIES

Professional Analytical Services

Jun 16 2010
Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Attention: Michael Erdahl

Dear Michael Erdahl:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
Comp01-CB1-3-100415	Soil	10-A006287	CONV, GRAIN SIZE
Comp02-CB4-6-100415	Soil	10-A006288	CONV, GRAIN SIZE

Your samples were received on Monday, April 19, 2010. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Method Detection Limits (MDL's), as opposed to Practical Quantitation Limits (PQL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,

Aaron W. Young
Laboratory Manager

Project #: 004165
PO Number: A-386

BACT = Bacteriological
CONV = Conventionals
TC=Total Coliforms
MET = Metals
ORG = Organics
NUT=Nutrients
DEM=Demand
MIN=Minerals
APC=Aerobic Plate Count

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com

AMTEST LABORATORIES

Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Attention: Michael Erdahl
Project #: 004165
PO Number: A-386

Date Received: 04/19/10
Date Reported: 6/16/10

AMTEST Identification Number 10-A006287
Client Identification Comp01-CB1-3-100415
Sampling Date 04/15/10
All results reported on a dry weight basis.

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	52.1	%		0.01	SM 2540G	MO	04/20/10

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	0.30 %	GRAVEL	3.00	ASTM D422	MO	05/27/10
- 2	4.00	0.30 %			ASTM D422	MO	05/27/10
-1	2.00	2.40 %			ASTM D422	MO	05/27/10
0	1.00	3.40 %	SAND	21.1	ASTM D422	MO	05/27/10
+1	0.50	4.20 %			ASTM D422	MO	05/27/10
+ 2	0.25	3.90 %			ASTM D422	MO	05/27/10
+ 3	0.125	4.40 %			ASTM D422	MO	05/27/10
+ 4	0.063	5.20 %			ASTM D422	MO	05/27/10
+ 5	0.032	58.2 %	SILT	69.8	ASTM D422	MO	05/27/10
+ 6	0.016	2.90 %			ASTM D422	MO	05/27/10
+ 7	0.008	3.10 %			ASTM D422	MO	05/27/10
+ 8	0.004	5.60 %			ASTM D422	MO	05/27/10
+ 9	0.002	1.20 %	CLAY	6.00	ASTM D422	MO	05/27/10
+ 10	0.001	< 0.1 %			ASTM D422	MO	05/27/10
> + 10	< 0.001	4.80 %			ASTM D422	MO	05/27/10

Aaron W. Young
Laboratory Manager

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AMTEST LABORATORIES

Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Attention: Michael Erdahl
Project #: 004165
PO Number: A-386

Date Received: 04/19/10
Date Reported: 6/16/10

AMTEST Identification Number 10-A006288
Client Identification Comp02-CB4-6-100415
Sampling Date 04/15/10
All results reported on a dry weight basis.

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	37.8	%		0.01	SM 2540G	MO	04/20/10

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	9.50 %	GRAVEL	14.4	ASTM D422	MO	05/27/10
- 2	4.00	0.20 %			ASTM D422	MO	05/27/10
-1	2.00	4.70 %			ASTM D422	MO	05/27/10
0	1.00	9.00 %	SAND	59.2	ASTM D422	MO	05/27/10
+1	0.50	10.3 %			ASTM D422	MO	05/27/10
+ 2	0.25	12.5 %			ASTM D422	MO	05/27/10
+ 3	0.125	13.6 %			ASTM D422	MO	05/27/10
+ 4	0.063	13.8 %			ASTM D422	MO	05/27/10
+ 5	0.032	18.4 %	SILT	22.1	ASTM D422	MO	05/27/10
+ 6	0.016	< 0.1 %			ASTM D422	MO	05/27/10
+ 7	0.008	2.60 %			ASTM D422	MO	05/27/10
+ 8	0.004	1.10 %			ASTM D422	MO	05/27/10
+ 9	0.002	1.20 %	CLAY	4.30	ASTM D422	MO	05/27/10
+ 10	0.001	0.70 %			ASTM D422	MO	05/27/10
> + 10	< 0.001	2.40 %			ASTM D422	MO	05/27/10

Aaron W. Young
Laboratory Manager

AMTEST
LABORATORIES

QC Summary for sample numbers: 10-A006287 to 10-A006288

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
10-A006287		%	0.30	0.20	40.
10-A006287	- 2	%	0.30	0.20	40.
10-A006287	-1	%	2.40	1.90	23.
10-A006287	0	%	3.40	3.60	5.7
10-A006287	+1	%	4.20	3.50	18.
10-A006287	+ 2	%	3.90	5.10	27.
10-A006287	+ 3	%	4.40	5.50	22.
10-A006287	+ 4	%	5.20	4.40	17.
10-A006287	+ 5	%	58.2	57.7	0.86
10-A006287	+ 6	%	2.90	4.10	34.
10-A006287	+ 7	%	3.10	2.10	38.
10-A006287	+ 8	%	5.60	5.60	0.00
10-A006287	+ 9	%	1.20	1.20	0.00
10-A006287	+ 10	%	< 0.1	< 0.1	
10-A006287	> + 10	%	4.80	4.80	0.00

TECHNICAL MEMORANDUM

May 2010 Supplement to Storm Water Source Control Evaluation

Fred Devine Diving & Salvage, Co.
6211 N. Ensign Street
Portland, Oregon 97217

October 25, 2010

Prepared for:

The Marine Salvage Consortium, Inc.
(dba Fred Devine Diving & Salvage, Co.)

Prepared by:

EVREN NORTHWEST INC.
environmental & natural resource consultants

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Project No. 521-04001-02 (2010-04)

TECHNICAL MEMORANDUM

May 2010 Supplement to
Storm Water Source Control Evaluation

Fred Devine Diving & Salvage, Co.
6211 N. Ensign Street
Portland, Oregon 97217

1.0 INTRODUCTION

This technical memorandum presents the results of additional work conducted by EVREN Northwest, Inc. (ENW) to supplement the *Storm Water Source Control Evaluation* (SCE)[1] for the Fred Devine Diving & Salvage, Co. (FDD&S) property (Figures 1 and 2). This work was conducted in general accordance[2] with the methodology of the 2007 Oregon Department of Environmental Quality (ODEQ)-approved *Work Plan*.[3]

The 2008 SCE provides the site's history and use, as well as description of the storm water system on site, and storm water pollution prevention and source control measures. For additional background, the reader is referred to the *Work Plan* and the *Storm Water Pollution Control Plan*[4] developed for the site.

2.0 SCOPE

The following work is described in this technical memorandum:

- **Catch Basin Sediment Sampling.** The *Work Plan* required one catch basin sediment sampling event. Sediment sampling was previously attempted, but not completed due to the lack of a sufficient volume of sediment present for sampling in the catch basins. To address this data gap, ENW conducted catch basin sediment sampling on April 15, 2010. However, in a deviation from the Work Plan, the samples were collected from sediment collected in the catch basin debris filters, rather than from the catch basins themselves, as there still was not sufficient sediment present in the catch basins (downstream of the filters) to sample.
- **Storm Water Sampling.** ENW conducted an additional storm water sampling event on May 13, 2009.

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[1] ENW. August 15, 2008. *Technical Memorandum: Storm Water Source Control Evaluation*.
[2] Deviations are noted in this document.
[3] ENW. June 26, 2007. *Storm Water Source Control Evaluation Work Plan*.
[4] ENW. March 3, 2010. *Storm Water Pollution Control Plan*.

3.0 CATCH BASIN SEDIMENT SAMPLING

The *Work Plan* specified the collection and analysis of catch basin sediment to evaluate the potential for site-related contaminants to impact the Willamette River via the City of Portland storm sewer line. ENW conducted sediment sampling on April 15, 2010. A photographic log of this work is presented in Attachment A.

3.1 Deviations

As discussed with ODEQ and subsequently approved[5], the following modifications were made to the *Work Plan* during sediment sampling:

- Catch basin sediments were sampled from the sediment detained in the catch basin debris filters, rather than from the catch basins themselves because insufficient materials were present in the catch basins (hydraulically downstream of the filters) to sample.
- Sediment samples were analyzed for polyaromatic hydrocarbons, metals and polychlorinated biphenyls.

3.2 Catch Basin Sampling Methodology

Catch basin sediment sampling was conducted prior to routine cleaning of the catch basins according to City of Portland's: *Standard Operating Procedures, Guidance for Sampling of Catch Basin Solids*[6]. However, it is important to note that the sediments sampled were collected from the catch basin debris filters, since so little sediment particulates were present in the bottoms of the catch basins. Therefore, some modifications to the guidance were necessary. Prior to and after any sample collection, all collection tools were decontaminated using a sequential wash of Alconox® solution, tap water from the City of Portland municipal water system, and finally with deionized water. Fresh, powder-less, Nitrile gloves were worn during sample collection. Only stainless steel tools and mixing bowls were used during sampling and compositing.

A total of two composite samples were collected. One composite sediment sample was created from sediment from catch basin CB1 through CB3 debris filters (sample COMP01-CB1-3-100415), and the other composite sample was comprised of sediment from catch basin CB4 through CB6 debris filters (sample COMP02-CB4-6-100415; see Figure 2 for sampling locations).

Composite samples were collected as follows. Discrete, equal-volume sediment samples were collected from each catch basin. Each group of catch basin samples was then placed in a mixing bowl. A clean stainless-steel trowel was used to thoroughly mix each composite

[5] Letter from ODEQ, data October 30, 2008

[6] CH2M Hill. 2003. *Standard Operating Procedures, Guidance for Sampling Catch Basin Solids*. Prepared for the City of Portland. July.

sample. Each composite sample was then transferred to a total of six 8-oz jars provided by the laboratory, promptly labeled showing date, time, sampler, sample designation, and analysis desired.

In addition, sediment in all six catch basins were qualitatively evaluated during the sampling event to record depth of sedimentation, and describe color, odor, presence of accumulated storm water, and presence of sheen and debris (settled and floating).

3.3 Analytical Methods, Sediment

ENW submitted the catch basin sediment samples to Friedman & Bruya, Inc. of Seattle, Washington, for analyses according to Table 3-1. The grain size analysis was conducted by Amtest of Kirkland, Washington at their request.

Table 3-1. Analytical Methods, Sediment

COIs	Analytical Method	Sample Container	Preservative and Handling	Hold Time
Metals (Cd, Cr, Cu, Pb, Ni and Zn)	EPA Method 6020	Clear 8 oz. glass	Cool to 4°C	Six months
PAHs (polynuclear aromatic hydrocarbons)	EPA Method 8270SIM	Clear 8 oz. glass	Cool to 4°C	14 days until extraction; 40 days after extraction
PCBs (polychlorinated biphenyls)	EPA Method 8082	Clear 8 oz. glass	Cool to 4°C	14 days until extraction; 40 days after extraction
Grain Size	ASTM D422	Polycarbonate tube with end caps or plastic bag	Not applicable	Not applicable

COI = constituent of interest.

3.4 Observations

On May 13, 2009 and April 15, 2010, all catch basins were opened and observations and measurements of materials in the catch basin were made. (Note that samples were only collected on April 15, 2010.) Table 3-2, below, summarizes these observations and measurements.

Table 3-2. Catch Basin Observations

Catch Basin	Depth to Bottom (in.)	Depth to Sediment (in.)	Sediment Thickness (in.)	Comments
May 13, 2009				
CB-1	39	38	1	Oil sheen on sediment. Average thickness of sediment on debris filters approximately 1/2 inch.
CB-2	39	38	1	
CB-3	33	32.5	0.5	
CB-4	33	32.5	0.5	
CB-5	34	33.5	0.5	
CB-6	34	33.5	0.5	
April 15, 2010				
CB-1	38.5	38.5	0	Oil sheen on sediment. Average thickness of sediment on debris filters approximately 2 inches.
CB-2	38.5	38	0.5	
CB-3	32	32	0	
CB-4	31	30.5	0.5	
CB-5	32.5	32.5	0	
CB-6	32.5	32.5	0	

3.5 Sediment Sample Descriptions

The following observations were made regarding the two composite catch basin sediment samples:

- **Composite Sample of Sediment from Catch Basins #1 through #3.** This sample, designated COMP01-CB1-3-100415, was described as very fine-grained, black/brown in color, musty odor, with few organics. The photoionization meter did not register the presence of any volatile constituents.
- **Composite Sample of Sediment from Catch Basins #4 through #6.** This sample, designated COMP01-CB4-6-100415 was described as coarser sediments with many organics including leaves, black in color. The photoionization meter did not register the presence of any volatile constituents.

3.6 Analytical Results, Sediment

The laboratory analytical results for the sediment samples are summarized in Table 1 (following the text) with units of measurement, compounds detected, Method Detection Limits (MDLs), and Joint Source Control Screening-Level Values (SLVs). Copies of the laboratory reports and chain-of-custody documentation are included as Attachment B. This data is also presented in the electronic disk attached to this report (Attachment C).

It should be reiterated that these results are for sediment present in the debris filters installed in the catch basins. There was very little sediment in the bases of the catch basins (downstream of the filters) indicating little if any sediment transport to the municipal storm

system. Results of sediment sampling are discussed below by constituent type. Therefore, since the filters are part of implemented Best Management Practices, and the sediment that accumulates in the filters is removed as part of that practice, comparison of these results to SLVs is inappropriate, as this material is unlikely to be released to the municipal storm sewer.

PAHs. A number of PAHs were detected at concentrations exceeding their respective SLVs.

Metals. Cadmium, copper, lead, and zinc were all detected at concentrations exceeding their respective SLVs.

PCBs. No PCBs were detected at or above the analytical method reporting limits (MRLs).

3.7 Discussion of Results, Sediment

The catch basin filters are evidently very successful in catching sediment and petroleum sheen and inhibiting transport to the City storm sewer system (petroleum sheen was not observed in the bottom of the catch basins).

4.0 STORM WATER SAMPLING

The *Work Plan* specified the collection and analysis of storm water to evaluate the potential for site-related contaminants to impact the Willamette River via the City of Portland storm sewer line. This work (including four "grab sample" storm water sampling events) was previously completed and described in the SCE. On May 13, 2009, an additional storm water sampling event was conducted by ENW.

4.1 Storm Water Sampling Methodology

Storm water samples were collected and analyzed following the methodology described in the *Work Plan*. ENW personnel collected grab samples representative of storm water discharge from a manhole located between Catch Basins #5 and #6, prior to where storm water from the site enters the City of Portland storm sewer line. It is believed that this location is most representative of storm water discharge leaving the site and entering the City of Portland Storm Sewer Line. This manhole has been informally designated Sampling Point SP01 (see attached site diagram, Figure 2).

ENW used *Work Plan*-specified storm-event criteria (discussed in Section 4.3) to select the storm events to be sampled.

Prior to collection, all collection tools were decontaminated using a sequential wash of Alconox® solution, tap water from the City of Portland municipal water system, and finally with deionized water. Fresh Nitrile gloves were worn during sample collection.

All samples were collected in laboratory-supplied containers from the central portion of the storm water flow. The bottles were capped immediately after collection. Storm water

samples were placed in appropriate, laboratory-supplied, sample containers and labeled with project name, sample name, date and time of collection, name of sampler, analysis required, and preservation. The samples were then immediately placed in cooled storage until they were delivered to the laboratory under chain-of-custody protocols.

Field readings of storm water parameters were recorded at the time of sample collection using a YSI meter; sampling records and field readings are documented on Field Sampling Data Sheets included as Attachment D.

4.2 Analytical Methods, Storm Water

ENW submitted the storm water samples to Friedman & Bruya, Inc. of Seattle, Washington, for analyses according to Table 4-1.

Table 4-1. Analytical Methods, Storm Water

COIs	Analytical Method	Sample Container	Preservative and Handling	Hold Time
Metals (Cd, Cr, Cu, Pb, Ni and Zn)	EPA Method 200.8	500-ml HDPE	Nitric Acid; Cool to 4°C	Six months
SVOCs	EPA Method 8270c	1-Liter amber glass	Cool to 4°C	7 days until extraction; 40 days after extraction
PAHs	EPA Method 8270	1-Liter amber glass	Cool to 4°C	7 days until extraction; 40 days after extraction
Phthalates	EPA Method 8270	1-Liter amber glass	Cool to 4°C	7 days until extraction; 40 days after extraction
PCBs	EPA Method 8082	1-Liter amber glass	Cool to 4°C	7 days until extraction; 40 days after extraction
Total Suspended Solids (TSS)	Standard Method 2540D	1-Liter polyethylene	Cool to 4°C	7 days

4.3 Evaluation of Storm-Event Criteria

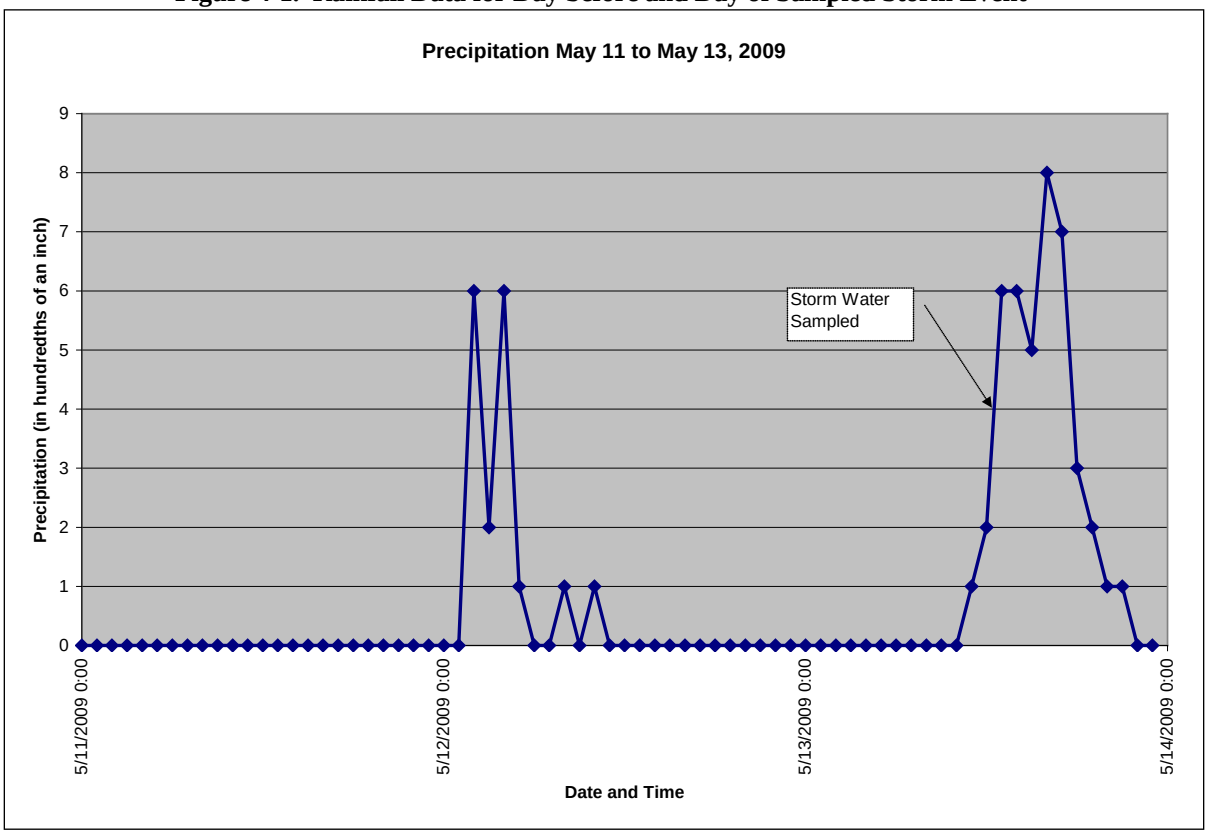
The *Work Plan* requires the following criteria to be employed in the selection of the storm event during which storm water samples were collected.

- Antecedent dry period of at least 24 hours (as defined by <0.1 inch of precipitation over the previous 24 hours).
- Minimum predicted rainfall volume of >0.2 inch per storm event.
- Expected duration of storm event of at least three hours.

ENW attempted to meet the above criteria, however real world conditions are not always conducive. City of Portland Hydra Rainfall Network rain gauge 204 data[7] are used to help evaluate conformance with the above criteria. Figure 4-1 is a graph of hourly precipitation data for the day before and the day of the sampled storm event.

Recorded storm-event data for May 13, 2009, as set forth in this Section below, was evaluated in accordance with the above criteria.

Figure 4-1. Rainfall Data for Day before and Day of Sampled Storm Event



4.3.1 Antecedent Dry Period

The antecedent dry period was evaluated using City of Portland Hydra Rainfall Network rain gauge 204 data.[7] Table 4-2 shows rainfall data obtained from the City of Portland Hydra Rainfall Network for the 24-hour period before the sampled storm event.

Table 4-2. Rainfall Data for 24 Hours Proceeding Sampled Storm Event

Date	Measured Precipitation
May 12, 2009	0.17 inches

[7] Rain-gauge data from: http://or.water.usgs.gov/non-usgs/bes/raingage_info/clickmap.html (Station number 204, rain gauge located on Swan Island.)

Table 4-2 shows that precipitation in the day prior to the sampled storm event slightly exceeded the antecedent dry period criteria, however prior to this there were four days of no measureable precipitation.

4.3.2 Storm Rainfall Volume

The storm event on May 13, 2009 was predicted to have greater than 0.2 inches of rainfall. Actual rainfall data obtained from the City of Portland Hydra Rainfall Network were as follows:

Table 4-3. Rainfall Data for Sampled Storm Event

Date	Measured Precipitation
May 12, 2009	0.42 inches

Table 4-3 shows that the storm event rainfall volume criteria were met.

4.3.3 Storm Event Duration

The sampled storm event had an expected duration of at least three hours. Actual storm duration is shown on Figure 4-1, which indicates the sampled storm event exceeded three hours in length.

4.4 Results, Storm Water

4.4.1 Field Parameters

Storm-water parameters were recorded at the time of sample collection using a YSI meter; in addition, the laboratory performed analysis for Total Suspended Solids as an additional control to evaluate the analytical data upon completion of this investigation. Parameter results for the current storm water sampling event are presented in Table 4-4, along with previously measured values, for reference.

Table 4-4. Field Parameters

Date	Sample	Time	Temperature (°C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	Redox Potential (mV)	Total Suspended Solids (mg/L)	Visual/ olfactory Notes
11/16/2007	SP01-071116	7:30	10.91	190	98.1	7.00	27	16.4	Slightly turbid
11/28/2007	SP-1	15:00	9.82	145	76.2	7.18	48	43.6	Turbid
3/26/2008	SP-1	11:45	6.54	145	7.98	7.42	22.1	68.9	Sheen
5/20/2008	SP01-080520	7:45	15.16	33	5.73	7.39	55.4	26	Slightly turbid
5/13/2009	OF01-090513	12:35	13.71	162	10.13	7.35	137	<10	Clear
°C = degrees Celsius.			mV = millivolts.						
mS/cm = microsiemens per centimeter.			NA = not analyzed.						
mg/L = milligrams per Liter or parts per million.			NT = not tested						

All parameters measured on the May 13, 2009 samples were within the normal ranges.

4.4.2 Analytical Data

Analytical results for the May 13, 2009 storm water sampling event are presented in Tables 2 and 3 (behind text) with units of measurement, compounds detected, MDLs, and SLVs. Copies of the laboratory reports and chain-of-custody documentation are included as

Attachment B. This data is also presented in the electronic disk attached to this report (Attachment C).

The following items are of note in regards to storm water leaving the FDD&S site:

- **PCBs** were not detected in any of the four storm water samples collected.
- Only one **phthalate** was detected; however, it was detected at a concentration below its SLV. No other phthalates were detected. Windblown Styrofoam packing peanuts from the UPS facility have previously been identified as the likely source of phthalates based on sampling and chemical fingerprint matching.[8]
- **Metals**: The metals detected above SLVs (cadmium, copper, lead and zinc) in storm water were detected at concentrations indicative of background concentrations for surface water in Oregon and/or are present at concentrations below State benchmarks for storm water discharge. Cadmium, lead and nickel were detected at geometric mean concentrations near ODEQ accepted background concentrations for surface water in Oregon[9]. Additionally, copper, and lead were detected at concentrations that are below ODEQ's Industrial General Permit 1200-Z benchmark values. Zinc was detected at 1,520-µg/L, exceeding its JSCS screening concentration, background concentration, and 1200-Z permit benchmark. It was also much higher than previous analytical data. However, the geometric mean for the four sampling events was below the 1200-Z benchmark concentration for zinc.

  It should be pointed out that from May until at least June of 2008 the adjacent property to the north (UPS) was being renovated, which included demolition of their paved surface area immediately north of the FDD&S facility. FDD&S observed no measures to mitigate dust during this work, and dust was observed to cloud the FDD&S site, resulting in a veneer of dust over much of the property. A sample of this dust was collected and analyzed for total and leachable metals, since many of the metals in the previous storm water samples were elevated compared to previous sampling events. Analytical results from the analysis of the dust sample are shown on Tables 1 and 4 for both total and leachable metals. As shown in Table 1, the dust sample contained 117 mg/Kg cadmium, 328 mg/Kg copper, 264 mg/Kg lead and 1,560 mg/Kg zinc. Analysis by the Synthetic Leaching Precipitation Procedure (TCLP) indicated zinc was leached at 10.0 mg/L (Table 4; equivalent to 10,000 µg/L); further demonstrating that dust reported to originate from the adjacent UPS facility

[8] ENW. 2008. Technical Memorandum: Wind-Blow Packaging Materials as Probably Source of Phthalates in Storm Water. July 25th.

[9] ODEQ. 2002. Memorandum: Toxicology Workshop: *Default Background Concentrations for Metals*. October 28.

was probably responsible for contributing to the increase of zinc concentrations in storm water onsite. It should also be noted that cadmium, copper and nickel leached from the dust sample, with reported concentrations of 0.55 mg/L, 1.05 mg/L and 0.11 mg/L, respectively. Many of FDD&S' BMPs have been based on controlling sediment, as it has been assumed that much of the impacts to storm water are a result of suspended sediment and leaching from sediment. Therefore, these results appear to show that this dust may be a significant contributor to observed storm water impacts at the FDD&S facility.

- **PAHs**: As shown in Table 2 (behind text) none of the few PAHs detected exceeded their respective SLVs.

5.0 Persistent Bioaccumulative and Toxic (PBT) Chemicals Detected

ENW accessed the EPA list of PBT chemicals to identify detected storm water constituents on the list. The following detected constituents are listed as PBTs:

Table 5-1. PBT Chemicals Detected

COI	Sediment (sampled April 15, 2010)	Storm Water (sampled May 13, 2009)
Benzo[g,h,i)perylene	Yes	*not detected*
Lead	Yes	Yes; however detected at below background

6.0 SUPPLEMENTAL EFFECTIVENESS EVALUATION

The storm water SCE[1] identified low-level constituents in storm water leaving the FDD&S site. These include metals, phthalates, petroleum hydrocarbons and PAHs. Based on previous results, FDD&S researched several catch basin filter applications, including wool filters that proved extremely ineffective. As a result, FDD&S designed and fabricated its own catch basin filtration devices taking into consideration use of materials that would not themselves leach potential contaminants, serviceability, and overall effectiveness to prevent contamination of storm water. The devices have been inserted in each of the catch basins and contain removable/replaceable filters made of polypropylene needle-punched nonwoven geotextile. Results of storm water sampling conducted in May 2009 and catch basin sediment sampling conducted in April 2010 show the effect these filtration devices have on storm water quality. Notable results include:

- A decrease in concentrations for cadmium, chromium, copper, and lead;
- A decrease in phthalate detections and concentrations in storm water;
- A decrease in the concentrations of detected PAHs in storm water;

- However, an increase in zinc concentration in storm water was observed during the 2008 storm water monitoring event. Based on the aforementioned analytical results from a sample of dust that impacted the FDD&S facility, this increase appears to be related to this 2008 dusting whose observed source was from the adjacent UPS property to the north.

It is important to note that the sediment data presented is from material collected in the catch basin debris filters. Therefore, sediment results qualitatively indicate what pollutants are potentially present in the storm system prior to filtration; however, the analytical results do not quantify the magnitude of those impacts since there is a concentrating affect as storm water passes through sediment held in the filter.

FDD&S management is strongly committed to long-term implementation of storm water protection measures at their property and will ensure continued implementation of the source control measures and best management practices described in the SCE, including routine catch basin cleaning. To this end, a storm water pollution prevention plan (SWPCP)[4] was prepared to be used as a guide and for a tool in training employees and tenants and filtration devices were installed in the catch basins as part of continued Best Management Practices. Inspection forms developed for the SWPCP are being used to assess site conditions and evaluate potential sources of contamination and the effectiveness of control measures.

7.0 LIMITATIONS

The conclusions of this report are based on information supplied by others as well as interpretations by qualified parties. The focus of this Assessment does not extend to the presence of the following conditions:

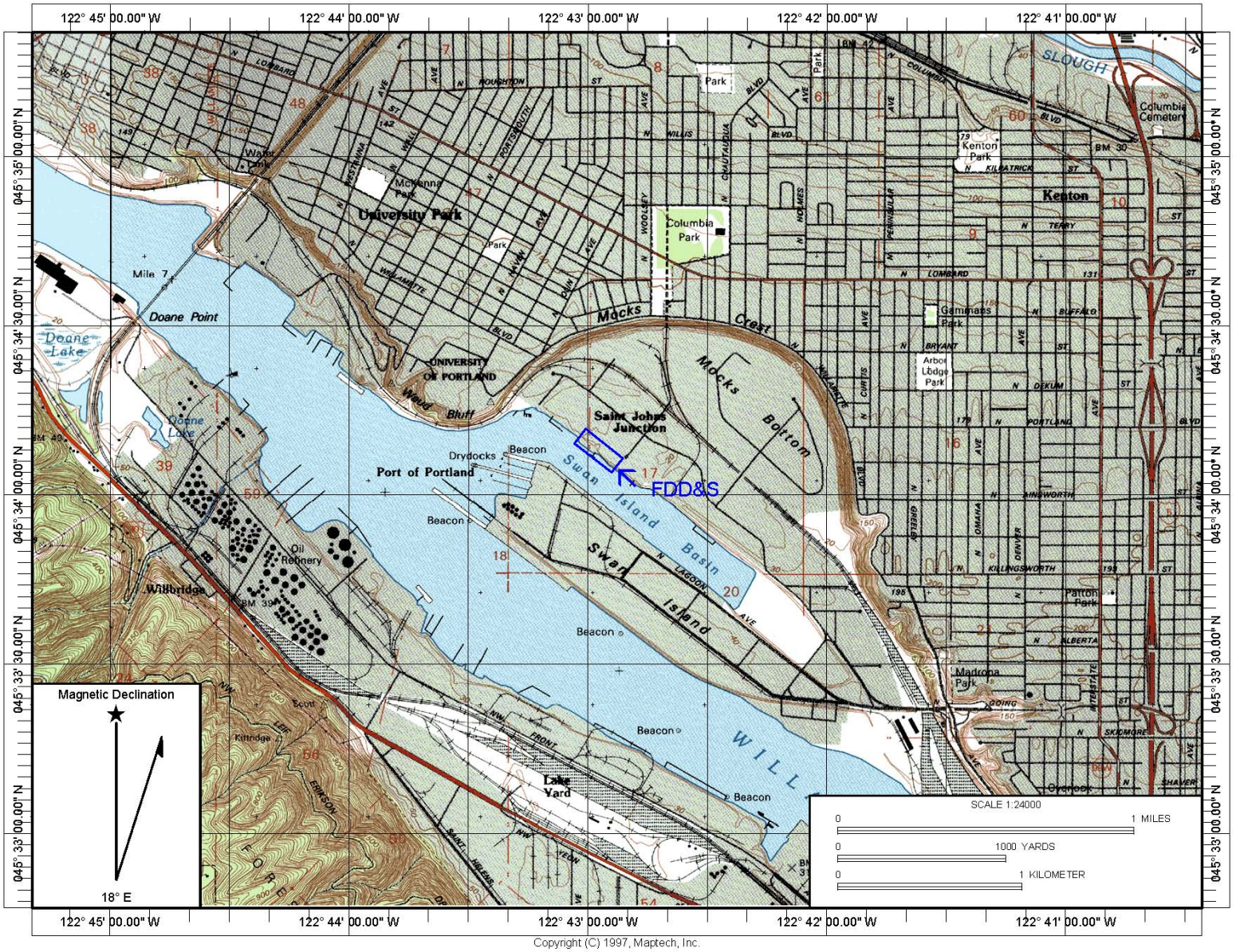
1. Naturally occurring toxic or hazardous substances in subsurface soils, geology and water,
2. Toxicity of substances common in current habitable environments, such as stored chemicals, products, building materials and consumables,
3. Contaminants or contaminant concentrations that are not a concern now but may be under future regulatory standards,
4. Unpredictable events that may occur after ENW's investigation, such as illegal dumping or accidental spillage.

There is no practice that is thorough enough to absolutely identify the presence of all hazardous substances at a given site. ENW's investigation has been focused only on the potential for contamination that was specifically identified in the scope of work (SOW). Therefore, if contamination other than that specifically mentioned is present and not identified as part of a limited SOW, ENW's environmental investigation shall not be construed as a guaranteed absence of such materials. Limitations notwithstanding, every effort was made to ensure the accuracy of representations herein.

We have performed our services for this project in accordance with our agreement with the client. This document and the information contained herein have been prepared solely for the use of the client and his representatives.

ENW performed this study under a limited scope of services per our agreement. ENW assumed no responsibility for conditions that we did not specifically evaluate or conditions that were not generally recognized as environmentally unacceptable at the time this report was prepared.

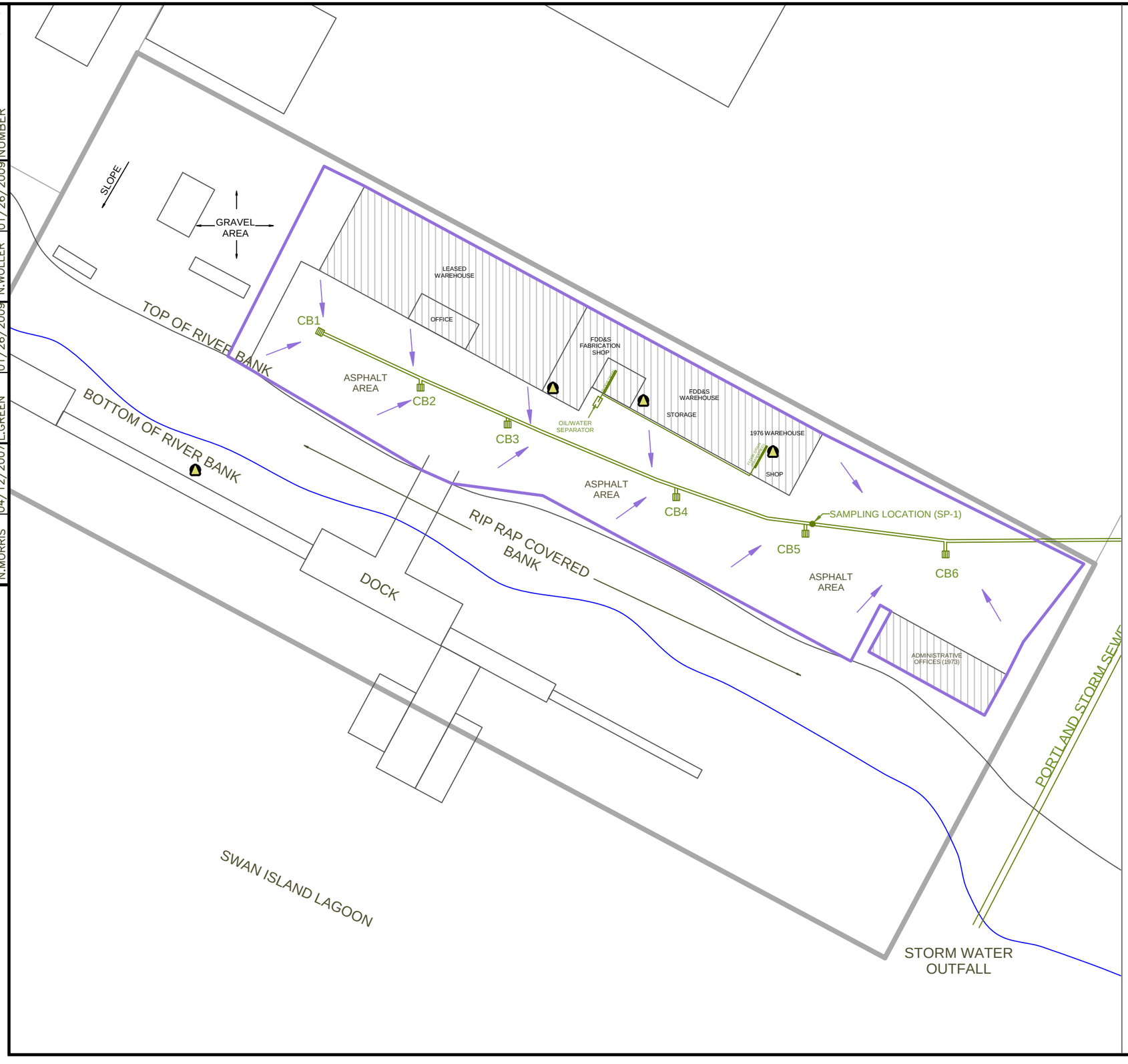
FIGURES



Source: USGS Topographic Map, 7.5-Minute Portland Quadrangle, 1990

EVREN NORTHWEST environmental natural resource consultants	Date Drawn: 4/11/2008 CAD File Name: 521-07001-01svmap.doc Drawn By: LDG Approved By: NMW	Fred Devine Diving & Salvage Co. 6211 N. Ensign Street Portland Oregon For: The Marine Salvage Consortium, Inc.	**Site Vicinity Map**	Project No. 521-07001-01 Figure No. **1**

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
N.MORRIS 04/12/2007	L.GREEN 01/26/2009	N.WOLLER 01/26/2009	521-07001(v01)



LEGEND:

- APPROXIMATE BUILDING LOCATIONS
- APPROXIMATE PROPERTY BOUNDARIES
- APPROXIMATE SUBJECT PROPERTY BOUNDARIES
- APPROXIMATE SUBJECT BUILDINGS
- CATCH BASIN
- STORM/DRAIN LINES
- APPROXIMATE BOUNDARY OF STORM WATER DRAINAGE AREA
- DIRECTION OF STORM WATER SHEET FLOW
- LOCATION OF SPILL KIT

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2005 AND EVREN NORTHWEST, INC FIELD NOTES.

APPROXIMATE SCALE

0 75 150 FEET

N

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FIGURE 2

SITE PLAN

FRED DIVINE DIVING & SALVAGE FACILITY
6211 NORTH ENSIGN STREET
PORTLAND, OREGON

TABLES

Table 1 - Summary of Analytical Data, Sediment

Location ID	Catch Basin # 1	Catch Basin # 2	Catch Basin # 3	Catch Basin # 4	Catch Basin # 5	Catch Basin # 6	CB01-CB03	CB04-CB06	DUST
Sample ID	CB-1	CB-2	CB-3	CB-4	CB-5	CB-6	COMP01-CB1-3-100415	COMP02-CB4-6-100415	DUST-100720
Date Sampled	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/15/2010	4/15/2010	7/20/2010
Depth Sampled (feet)	NA	NA	NA	NA	NA	NA	10.5	10	Surface
Sample By	Evergreen	Evergreen	Evergreen	Evergreen	Evergreen	Evergreen	ENW	ENW	ENW
Location	Catch Basin # 1	Catch Basin # 2	Catch Basin # 3	Catch Basin # 4	Catch Basin # 5	Catch Basin # 6	CB01, CB02, CB03	CB04, CB05, CB06	Dust layer in traler along northern edge of FDD&S facility
Constituent of Interest	mg/Kg (ppm)								
Semi-Volatile Organic Constituents (SVOCs)									
Polyaromatic Hydrocarbons									
Naphthalene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	<0.2 (ND)	0.22	NA
Acenaphthene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	<0.2 (ND)	**0.60**	NA
Fluorene	<6.7 (ND)	NA	<6.7 (ND)	**6.73**	NA	<6.7 (ND)	<0.2 (ND)	**1.3**	NA
Anthracene	<6.7 (ND)	NA	<6.7 (ND)	**16.7**	NA	<6.7 (ND)	0.59	**2.3**	NA
Fluoranthene	<6.7 (ND)	NA	**16.3**	**18.7**	NA	<6.7 (ND)	**4.1**	**28**	NA
Pyrene	<6.7 (ND)	NA	**8.9**	**12.5**	NA	<6.7 (ND)	**2.8**	**17**	NA
Benz[a]anthracene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	0.90	**3.9**	NA
Chrysene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	**2.4**	**11**	NA
Benzo[b]fluoranthene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	2.00	7.9	NA
Benzo[k]fluoranthene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	0.57	2.5	NA
Benzo[a]pyrene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	0.68	**2.0**	NA
Indeno[1,2,3-cd]pyrene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	**0.69**	**1.8**	NA
Dibenz[a,h]anthracene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	<0.2 (ND)	0.30	NA
Benzo[g,h,i]perylene	<6.7 (ND)	NA	<6.7 (ND)	<6.7 (ND)	NA	<6.7 (ND)	**0.55**	**1.4**	NA
Polychlorinated Biphenyls (PCBs)									
Aroclor 1016	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1221	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1232	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1242	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1248	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1254	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Aroclor 1260	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA
Total PCBs (total as Aroclors)	<0.5 (ND)	NA	<0.5 (ND)	<0.5 (ND)	NA	<0.5 (ND)	<0.05 (ND)	<0.05 (ND)	NA

Table 1 - Summary of Analytical Data, Sediment

Location ID	Catch Basin # 1	Catch Basin # 2	Catch Basin # 3	Catch Basin # 4	Catch Basin # 5	Catch Basin # 6	CB01-CB03	CB04-CB06	DUST
Sample ID	CB-1	CB-2	CB-3	CB-4	CB-5	CB-6	COMP01-CB1-3-100415	COMP02-CB4-6-100415	DUST-100720
Date Sampled	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/30/2002	4/15/2010	4/15/2010	7/20/2010
Depth Sampled (feet)	NA	NA	NA	NA	NA	NA	10.5	10	Surface
Sample By	Evergreen	Evergreen	Evergreen	Evergreen	Evergreen	Evergreen	ENW	ENW	ENW
Location	Catch Basin # 1	Catch Basin # 2	Catch Basin # 3	Catch Basin # 4	Catch Basin # 5	Catch Basin # 6	CB01, CB02, CB03	CB04, CB05, CB06	Dust layer in traler along northern edge of FDD&S facility
Constituent of Interest	mg/Kg (ppm)								
Metals									
Cadmium	**2.25**	NA	**2.75**	**3.47**	NA	<1 (ND)	**3.84**	**5.03**	**117**
Chromium (total)	NA	NA	NA	NA	NA	NA	43.0	54.6	71.1
Copper	**206**	NA	**172**	**202**	NA	**85.5**	**193**	**278**	**328**
Lead	**226**	NA	**176**	**283**	NA	**66.6**	**92.6**	**152**	**264**
Zinc	**447**	NA	**365**	**488**	NA	**236**	**455**	**636**	**1560**
Total Petroleum Hydrocarbons									
DRO	NA	NA	NA	NA	NA	NA	4500 x	4400 x	NA
RRO	NA	NA	NA	NA	NA	NA	9000	12000	NA

Notes:

NP = not present based on NWTPH-HCID (hydrocarbon identification) analysis
ND = not detected at or above laboratory method reporting limits
— = not analyzed or not applicable.
NE = not established.
mk/Kg = milligrams per kilogram
DRO = diesel-range organics.
RRO = residual-range organics.
JSCS = Portland Harbor Joint Source Control Strategy, ODEQ and EPA, December 2005
Bolded concentrations exceed JSCS screening levels (indicated with a Y)
(Y) indicates analyte not detected, but detection limit is above screening concentration.

* Portland Harbor RI/FS, June 24, 2004, Table A6-2,
Analytes, Analytical Concentration Goals and Method
Reporting Limits for Sediment Samples

ACG = Analytical Concentration Goals
MDL = Method Detection Limit
MRL = Method Reporting Limit
PQL = Practible Quanitation Limit
tbd = to be determined

Table 1 - Summary of Analytical Data, Sediment

Location ID / Sample ID / Date Sampled / Depth Sampled (feet) / Sample By / Location	Maximum Detected Sediment Concentration (since SWPCP Implementation)	Lowest JSCS Screening Level or ODEQ Sediment Bioaccumulation Screening Level	Background Concentrations (Sediment)	COPC?	Generally Accepted and Achievable Laboratory Detection Limits prepared by the Lower Willamette Group* (all in mg/Kg)			
Constituent of Interest	mg/Kg (ppm)			Y / N	ACG	MDL	MRL	PQL
	Semi-Volatile Organic Constituents (SVOCs)							
	Polyaromatic Hydrocarbons							
Naphthalene	0.22	0.561	---	N	0.024	tbd	0.02	0.002
Acenaphthene	**0.6**	0.3	---	Y	0.072	tbd	0.02	0.002
Fluorene	**1.3**	0.536	---	Y	0.048	tbd	0.02	0.002
Anthracene	**2.3**	0.845	---	Y	0.36	tbd	0.02	0.002
Fluoranthene	**28**	2.23	---	Y	0.048	tbd	0.02	0.002
Pyrene	**17**	1.9	---	Y	0.036	tbd	0.02	0.002
Benz[a]anthracene	**3.9**	1.05	---	Y	0.000038	tbd	0.005	0.002
Chrysene	**11**	1.29	---	Y	0.0038	tbd	0.005	0.002
Benzo[b]fluoranthene	7.9	NE	---	N	0.000038	tbd	0.005	0.004
Benzo[k]fluoranthene	2.5	13	---	N	0.00038	tbd	0.005	0.004
Benzo[a]pyrene	**2**	1.45	---	Y	0.0000038	tbd	0.005	0.002
Indeno[1,2,3-cd]pyrene	**1.8**	0.1	---	Y	0.000038	tbd	0.005	0.002
Dibenz[a,h]anthracene	0.3	1.3	---	N	0.0000038	tbd	0.005	0.002
Benzo[g,h,i]perylene	**1.4**	0.3	---	Y	NE	tbd	0.005	0.002
	Polychlorinated Biphenyls (PCBs)							
Aroclor 1016	<0.05 (ND)	0.42	---	N	NE	tbd	0.004	0.01
Aroclor 1221	<0.05 (ND)	NE	---	N	NE	tbd	0.004	0.01
Aroclor 1232	<0.05 (ND)	NE	---	N	NE	tbd	0.004	0.01
Aroclor 1242	<0.05 (ND)	0.002	---	(Y)	0.000004	tbd	0.004	0.01
Aroclor 1248	<0.05 (ND)	0.004	---	(Y)	0.000004	tbd	0.004	0.01
Aroclor 1254	<0.05 (ND)	0.01	---	(Y)	0.000004	tbd	0.004	0.01
Aroclor 1260	<0.05 (ND)	0.2	---	N	0.000004	tbd	0.004	0.01
Total PCBs (total as Aroclors)	<0.05 (ND)	4.80E-05	---	(Y)	NE	NE	NE	NE

Table 1 - Summary of Analytical Data, Sediment

Location ID **Sample ID** **Date Sampled** **Depth Sampled (feet)** **Sample By** **Location**	Maximum Detected Sediment Concentration (since SWPCP Implementation)	Lowest JSCS Screening Level or ODEQ Sediment Bioaccumulation Screening Level	Background Concentrations (Sediment)	COPC?	Generally Accepted and Achievable Laboratory Detection Limits prepared by the Lower Willamette Group* (all in mg/Kg)			
Constituent of Interest	mg/Kg (ppm)			Y / N	ACG	MDL	MRL	PQL
Metals								
Cadmium	**5.03**	1	0.5	Y	NE	0.006	0.02	NE
Chromium (total)	54.6	111	30	N	NE	0.04	0.2	NE
Copper	**278**	10	12	Y	NE	0.07	0.1	NE
Lead	**152**	17	13.3	Y	NE	0.02	0.05	NE
Zinc	**636**	3	53	Y	NE	0.1	0.5	NE
Total Petroleum Hydrocarbons								
DRO	4500	NE	---	N	NE	7.1	25	NE
RRO	12000	NE	---	N	NE	4.6	100	NE

Notes:

NP = not present based on NWTPH-HCID (hydrocarbon id
ND = not detected at or above laboratory method reporting
— = not analyzed or not applicable.
NE = not established.
mk/Kg = milligrams per kilogram

DRO = diesel-range organics.

RRO = residual-range organics.
JSCS = Portland Harbor Joint Source Control Strategy, OI
Bolded concentrations exceed JSCS screening levels (ind
(Y) indicates analyte not detected, but detection limit is ab

* Portland Harbor RI/FS, June 24, 2004, Table A6-2, Analytes, Analytical Concentration Goals and Method Reporting Limits for Sediment Samples

ACG = Analytical Concentration Goals
MDL = Method Detection Limit
MRL = Method Reporting Limit
PQL = Practible Quanitation Limit
tbd = to be determined

Table 2 - Summary of Analytical Results, Storm Water

Location ID		SP01		SP01		SP01		SP01		SP01	
Sample ID		SP01-071116		SP-1		SP-1		0SP01-080520		0F01-090513	
Date Sampled		11/16/2007		11/28/2007		3/26/2008		5/20/2008		5/13/2009	
		Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit
Constituent of Interest	Note	µg/L (ppb)									
Semi-Volatile Organic Constituents (SVOCs)											
Haogenated Compounds											
Dichlorobenzene, 1,2-	nc, v	---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Dichlorobenzene, 1,3-		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Dichlorobenzene, 1,4-		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Trichlorobenzene, 1,2,4-		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Hexachlorobenzene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
2-Chloronaphthalene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Hexachloroethane		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Hexachlorobutadiene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Hexachlorocyclopentadiene		---	---	---	---	---	---	---	---	<1.5 (ND)	*1.5*
2,2'-oxybis(1-chloropropane)		---	---	---	---	---	---	---	---	---	---
Bis-(2-chloroethoxy) methane		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Bis-(2-chloroethyl) ether		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
4-Chlorophenyl-phenyl ether		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
4-bromophenyl-phenyl ether		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
3-3'-Dichlorobenzidine		---	---	---	---	---	---	---	---	---	---
4-Chloroaniline		---	---	---	---	---	---	---	---	<1.5 (ND)	*1.5*
Organonitrogen Compounds											
Nitrobenzene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Aniline		---	---	---	---	---	---	---	---	---	---
2-Nitroaniline		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
3-Nitroaniline		---	---	---	---	---	---	---	---	<1.5 (ND)	*1.5*
4-Nitroaniline		---	---	---	---	---	---	---	---	<5 (ND)	*5*
N-Nitrosodimethylamine		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
N-Nitroso-di-n-propylamine		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
N-Nitrosodiphenylamine		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
2,4-Dinitrotoluene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
2,6-Dinitrotoluene		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Carbazole		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Oxygen-Containing Compounds											
Benzoic Acid		---	---	---	---	---	---	---	---	<50 (ND)	*50*
Benzyl Alcohol		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Dibenzofuran		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Isophorone		---	---	---	---	---	---	---	---	<0.5 (ND)	*0.5*
Phenols and Substituted Phenols											
Phenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2-Methylphenol (o-Cresol)		---	---	---	---	---	---	---	---	<5 (ND)	*5*
4-Methylphenol (o-Cresol)		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4-Dimethylphenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2-Chlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4-Dichlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4,5-Trichlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4,6-Trichlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,3,4,6-Tetrachlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
Pentachlorophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
4-Chloro-3-methylphenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2-Nitrophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
4-Nitrophenol		---	---	---	---	---	---	---	---	<5 (ND)	*5*
2,4-Dinitrophenol		---	---	---	---	---	---	---	---	<15 (ND)	*15*
Methyl-4,6-Dinitrophenol 2-		---	---	---	---	---	---	---	---	<15 (ND)	*15*
Phthalate Esters											
Dimethylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*
Diethylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*
Di-n-butylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*
Butylbenzylphthalate	c, v	<1 (ND)	*1*	0.59	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*
Di-n-octylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	0.9	*0.5*
Bis[2-ethylhexyl]phthalate	c, nv	<10 (ND)	*10*	**2.9**	*0.5*	**3.1 J, fb**	*0.5*	**3.1 fbs**	*0.5*	<5 (ND)	*5*
Polyaromatic Hydrocarbons											
Naphthalene	nc, v	<1 (ND)	*1*	0.15	*0.05*	<0.05 (ND)	*0.05*	**0.53**	*0.05*	0.055	*0.05*
2-Methylnaphthalene		<1 (ND)	*1*		*0.05*	<0.05 (ND)	*0.05*		*0.05*	<0.5 (ND)	*0.5*
Acenaphthylene	nc, v	<1 (ND)	*1*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	0.07	*0.05*	<0.05 (ND)	*0.05*
Acenaphthene	c, nv	<1 (ND)	*1*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Fluorene	c, nv	<1 (ND)	*1*	0.11	*0.05*	<0.05 (ND)	*0.05*	0.093	*0.05*	<0.05 (ND)	*0.05*
Phenanthrene	c, nv	<1 (ND)	*1*	**0.52**	*0.05*	0.13	*0.05*	**0.29**	*0.05*	0.051	*0.05*
Anthracene	c, nv	<1 (ND)	*1*	0.053	*0.05*	<0.05 (ND)	*0.05*	0.064	*0.05*	<0.05 (ND)	*0.05*
Fluoranthene	nc, nv	<1 (ND)	*1*	**0.45**	*0.05*	**0.24**	*0.05*	**0.23**	*0.05*	0.066	*0.05*
Pyrene	c, nv	<1 (ND)	*1*	**0.38**	*0.05*	0.18	*0.05*	0.15	*0.05*	0.057	*0.05*
Benz[a]anthracene	c, nv	<1 (ND)	*1*	**0.14**	*0.05*	**0.062**	*0.05*	**0.082**	*0.05*	<0.05 (ND)	*0.05*
Chrysene	nc, nv	<1 (ND)	*1*	**0.30**	*0.05*	**0.018**	*0.05*	**0.18**	*0.05*	<0.05 (ND)	*0.05*
Benzo[b]fluoranthene	nc, v	<1 (ND)	*1*	**0.26**	*0.05*	**0.16**	*0.05*	**0.13**	*0.05*	<0.05 (ND)	*0.05*
Benzo[k]fluoranthene	c, nv	<1 (ND)	*1*	**0.081**	*0.05*	**0.057**	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Benzo[a]pyrene	c, nv	<1 (ND)	*1*	**0.15**	*0.05*	**0.067**	*0.05*	**0.056**	*0.05*	<0.05 (ND)	*0.05*
Indeno[1,2,3-cd]pyrene	c, nv	<1 (ND)	*1*	**0.15**	*0.05*	**0.080**	*0.05*	**0.056**	*0.05*	<0.05 (ND)	*0.05*
Dibenz[a,h]anthracene	c, nv	<1 (ND)	*1*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND) jl	*0.05*
Benzo[g,h,i]perylene	nc, nv	<1 (ND)	*1*	0.15	*0.05*	0.091	*0.05*	0.060	*0.05*	<0.05 (ND) jl	*0.05*

Table 2 - Summary of Analytical Results, Storm Water

Location ID		SP01		SP01		SP01		SP01		SP01	
Sample ID		**SP01-071116**		**SP-1**		**SP-1**		**0SP01-080520**		**0F01-090513**	
Date Sampled		**11/16/2007**		**11/28/2007**		**3/26/2008**		**5/20/2008**		**5/13/2009**	
		Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1221	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1232	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1242	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1248	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1254	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1260	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Aroclor 1262	c, nv	<0.1 (ND)	*0.1*	<0.07 (ND)	*0.07*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*
Metals											
Cadmium	c, nv	<1 (ND)	*1*	**1.34**	*1*	**0.80**	*0.1*	**0.86**	*0.2*	<1 (ND)	*1*
Chromium (total)	nc, nv	1.92	*1*	5.32	*1*	3.13	*1*	98.7	*1*	2.77	*1*
Copper	c, nv	**21.7**	*1*	**74.1**	*1*	**30.8**	*1*	**48.1**	*1*	**14.5**	*1*
Lead	nc, nv	**8.84**	*1*	**25.4**	*1*	**24.2**	*1*	**14.9**	*0.5*	**6.28**	*1*
Nickel	nc, nv	2.16	*1*	5.22	*1*	2.77	*1*	3.62	*1*	2.74	*1*
Zinc	nc, nv	**321**	*1*	**457**	*1*	**299**	*1*	**395**	*1*	**1520**	*1*
Total Petroleum Hydrocarbons											
DRO	nc, nv	310	50	650	50	360 x	50	940	50	290 X	50
RRO	nc, nv	590	250	1100	250	1220	250	2000	250	<250 (ND)	250

Notes:

ND = not detected at or above laboratory method reporting limits

NE = not established.

µg/L = micrograms per Liter

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

JSCS = Portland Harbor Joint Source Control Strategy, ODEQ and EPA, December 2005

x = Chromatogram pattern is not indicative of diesel

J = Sample is out of control limits, and concentration is considered an estimate

fb = analyte found in method blank, and should be considered an estimate.

fbs = analyte found in method blank. A small percentage of the material present may be due to laboratory contamination.

(1) based on human health exosure to tap water

(2) as chromium VI to remain conservative

Table 2 - Summary of Analytical Results, Storm Water

Location ID / Sample ID / Date Sampled		Maximum Detected Storm Water Concetnration	Geometric Mean (1/2 MDL used if ND)	Lowest JSCS Screening Value	Background	1200-Z Benchark	RBDM Screening-Level RBCs (1)	EPA Region VI SSLs (1)
Constituent of Interest	Note	µg/L (ppb)		µg/L (ppb)				
Semi-Volatile Organic Constituents (SVOCs)								
Haogenated Compounds								
Dichlorobenzene, 1,2-	nc, v	ND	---	14	---	---	50	370
Dichlorobenzene, 1,3-		ND	---	71	---	---	15	---
Dichlorobenzene, 1,4-		ND	---	0.5	---	---	0.48	0.43
Trichlorobenzene, 1,2,4-		ND	---	7	---	---	---	8.2
Hexachlorobenzene		ND	---	0.000029	---	---	---	0.042
2-Chloronaphthalene		ND	---	160	---	---	---	2900
Hexachloroethane		ND	---	0.33	---	---	---	4.8
Hexachlorobutadiene		ND	---	0.86	---	---	---	0.86
Hexachlorocyclopentadiene		ND	---	5.2	---	---	---	220
2,2'-oxybis(1-chloropropane)		---	---	NE	---	---	---	---
Bis-(2-chloroethoxy) methane		ND	---	NE	---	---	---	110
Bis-(2-chloroethyl) ether		ND	---	0.01	---	---	---	0.012
4-Chlorophenyl-phenyl ether		ND	---	NE	---	---	---	---
4-bromophenyl-phenyl ether		ND	---	NE	---	---	---	---
3-3'-Dichlorobenzidine		---	---	0.0028	---	---	0.13	0.15
4-Chloroaniline		ND	---	150	---	---	---	1.2
Organonitrogen Compounds								
Nitrobenzene		ND	---	3.4	---	---	---	3.4
Aniline		---	---	12	---	---	---	12
2-Nitroaniline		ND	---	110	---	---	---	---
3-Nitroaniline		ND	---	3.2	---	---	---	3.2
4-Nitroaniline		ND	---	3.2	---	---	---	3.2
N-Nitrosodimethylamine		ND	---	0.0013	---	---	---	0.00042
N-Nitroso-di-n-propylamine		ND	---	0.0096	---	---	---	---
N-Nitrosodiphenylamine		ND	---	0.6	---	---	---	14
2,4-Dinitrotoluene		ND	---	0.34	---	---	---	73
2,6-Dinitrotoluene		ND	---	36	---	---	0.0035	37
Carbazole		ND	---	3.4	---	---	---	---
Oxygen-Containing Compounds								
Benzoic Acid		ND	---	42	---	---	---	150,000
Benzyl Alcohol		ND	---	8.6	---	---	---	18,000
Dibenzofuran		ND	---	3.7	---	---	---	---
Isophorone		ND	---	71	---	---	---	71
Phenols and Substituted Phenols								
Phenol		ND	---	2,560	---	---	---	11,000
2-Methylphenol (o-Cresol)		ND	---	13	---	---	---	1,800
4-Methylphenol (o-Cresol)		ND	---	180	---	---	---	180
2,4-Dimethylphenol		ND	---	85	---	---	---	730
2-Chlorophenol		ND	---	15	---	---	---	180
2,4-Dichlorophenol		ND	---	29	---	---	---	110
2,4,5-Trichlorophenol		ND	---	360	---	---	---	3,700
2,4,6-Trichlorophenol		ND	---	0.24	---	---	5.5	6.1
2,3,4,6-Tetrachlorophenol		ND	---	1,100	---	---	---	1,100
Pentachlorophenol		ND	---	0.3	---	---	0.47	0.56
4-Chloro-3-methylphenol		ND	---	NE	---	---	---	---
2-Nitrophenol		ND	---	150	---	---	---	---
4-Nitrophenol		ND	---	150	---	---	---	---
2,4-Dinitrophenol		ND	---	73	---	---	---	73
Methyl-4,6-Dinitrophenol 2-		ND	---	28	---	---	---	---
Phthalate Esters								
Dimethylphthalate	c, v	ND	0.30	3	--	--	--	370000
Diethylphthalate	c, v	ND	0.30	3	--	--	--	29000
Di-n-butylphthalate	c, v	ND	0.30	3	--	--	--	3700
Butylbenzylphthalate	c, v	ND	0.37	3	--	--	--	7300
Di-n-octylphthalate	c, v	0.9	0.34	3	--	--	--	---
Bis[2-ethylhexyl]phthalate	c, nv	**3.1 J, fb**	**3.87**	0.22	--	--	4.1	4.8
Polyaromatic Hydrocarbons								
Naphthalene	nc, v	**0.53**	0.10	0.2	---	---	6.2	6.2
2-Methylnaphthalene		1	#NUM!	0.2	---	---	---	
Acenaphthylene	nc, v	ND	<0.06 (ND)	0.2	---	---	---	---
Acenaphthene	c, nv	ND	<0.05 (ND)	0.2	---	---	370	370
Fluorene	c, nv	0.11	0.09	0.2	---	---	240	240
Phenanthrene	c, nv	**0.52**	**0.22**	0.2	---	---	---	---
Anthracene	c, nv	0.064	0.06	0.2	---	---	1800	1800
Fluoranthene	nc, nv	**0.45**	**0.24**	0.2	---	---	1500	1500
Pyrene	c, nv	**0.38**	0.20	0.2	---	---	1100	180
Benz[a]anthracene	c, nv	**0.14**	**0.10**	0.0018	---	---	0.078	0.029
Chrysene	nc, nv	**0.30**	**0.10**	0.0018	---	---	7.8	2.9
Benzo[b]fluoranthene	nc, v	**0.26**	**0.15**	0.0018	---	---	0.078	0.029
Benzo[k]fluoranthene	c, nv	**0.081**	**0.07**	0.0018	---	---	0.78	0.29
Benzo[a]pyrene	c, nv	**0.15**	**0.09**	0.0018	---	---	0.0078	0.0029
Indeno[1,2,3-cd]pyrene	c, nv	**0.15**	**0.10**	0.0018	---	---	0.078	0.029
Dibenz[a,h]anthracene	c, nv	ND	<0.05 (ND)	0.0018	---	---	0.0078	0.0029
Benzo[g,h,i]perylene	nc, nv	0.15	0.10	0.2	---	---	---	---

Table 2 - Summary of Analytical Results, Storm Water

Location ID / Sample ID / Date Sampled		Maximum Detected Storm Water Concetnration	Geometric Mean (1/2 MDL used if ND)	Lowest JSCS Screening Value	Background	1200-Z Benchark	RBDM Screening-Level RBCs (1)	EPA Region VI SSLs (1)
Polychlorinated Biphenyls (PCBs)								
Aroclor 1016	c, nv	ND	<0.01 (ND)	0.96	---	---	0.96	0.96
Aroclor 1221	c, nv	ND	<0.01 (ND)	0.28	---	---	0.028	0.034
Aroclor 1232	c, nv	ND	<0.01 (ND)	0.58	---	---	0.028	0.034
Aroclor 1242	c, nv	ND	<0.01 (ND)	0.053	---	---	0.028	0.034
Aroclor 1248	c, nv	ND	<0.01 (ND)	0.081	---	---	0.028	0.034
Aroclor 1254	c, nv	ND	<0.01 (ND)	0.033	---	---	0.028	0.034
Aroclor 1260	c, nv	ND	<0.01 (ND)	94	---	---	0.028	0.034
Aroclor 1262	c, nv	ND	<0.01 (ND)	NE	---	---	---	---
Metals								
Cadmium	c, nv	**1.34**	**0.75**	0.094	<1	---	---	18
Chromium (total)	nc, nv	5.32	6.14	100	1	---	---	110
Copper	c, nv	**74.1**	32.2	2.7	9	100		1400
Lead	nc, nv	**25.4**	13.8	0.54	13.3	400		15
Nickel	nc, nv	5.22	3.15	NE	5.5	---		730
Zinc	nc, nv	**1520**	483	33	38	600		11000
Total Petroleum Hydrocarbons								
DRO	nc, nv	650	381	NE	---	10000	---	---
RRO	nc, nv	1220	667	NE	---			

Notes:

ND = not detected at or above laboratory method re

NE = not established.

µg/L = micrograms per Liter

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

JSCS = Portland Harbor Joint Source Control Strat

x = Chromatogram pattern is not indicative of diese

J = Sample is out of control limits, and concentratio

fb = analyte found in method blank, and should be

fbs = analyte found in method blank. A small perce

(1) based on human health exosure to tap water

(2) as chromium VI to remain conservative

Table 3 - Summary of Detected Constituents in Storm Water

Location ID		SP01		SP01		SP01		SP01		SP01		Maximum Detected Storm Water Concetnration	Geometric Mean (1/2 MDL used if ND)	Lowest JSCS Screening Value	Background	1200-Z Benchark	RBDM Screening-Level RBCs (1)	EPA Region VI SSLs (1)
Sample ID		SP01-071116		SP-1		SP-1		0SP01-080520		0F01-090513								
Date Sampled		11/16/2007		11/28/2007		3/26/2008		5/20/2008		5/13/2009								
		Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit	Concentration	Method Detection Limit							
Constituent of Interest	Note	µg/L (ppb)										µg/L (ppb)		µg/L (ppb)				
Phthalate Esters																		
Di-n-octylphthalate	c, v	<1 (ND)	*1*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	<0.5 (ND)	*0.5*	0.9	*0.5*	0.9	0.34	3	--	--	--	---
Bis[2-ethylhexyl]phthalate	c, nv	<10 (ND)	*10*	**2.9**	*0.5*	**3.1 J, fb**	*0.5*	**3.1 fbs**	*0.5*	<5 (ND)	*5*	**3.1 J, fb**	**3.87**	0.22	--	--	4.1	4.8
Polyaromatic Hydrocarbons																		
Naphthalene	nc, v	<1 (ND)	*1*	0.15	*0.05*	<0.05 (ND)	*0.05*	**0.53**	*0.05*	0.055	*0.05*	**0.53**	0.10	0.2	---	---	6.2	6.2
Fluorene	c, nv	<1 (ND)	*1*	0.11	*0.05*	<0.05 (ND)	*0.05*	0.093	*0.05*	<0.05 (ND)	*0.05*	0.11	0.09	0.2	---	---	240	2.40E+02
Phenanthrene	c, nv	<1 (ND)	*1*	**0.52**	*0.05*	0.13	*0.05*	**0.29**	*0.05*	0.051	*0.05*	**0.52**	**0.22**	0.2	---	---	---	---
Anthracene	c, nv	<1 (ND)	*1*	0.053	*0.05*	<0.05 (ND)	*0.05*	0.064	*0.05*	<0.05 (ND)	*0.05*	0.064	0.06	0.2	---	---	1800	1.80E+03
Fluoranthene	nc, nv	<1 (ND)	*1*	**0.45**	*0.05*	**0.24**	*0.05*	**0.23**	*0.05*	0.066	*0.05*	**0.45**	**0.24**	0.2	---	---	1500	1.50E+03
Pyrene	c, nv	<1 (ND)	*1*	**0.38**	*0.05*	0.18	*0.05*	0.15	*0.05*	0.057	*0.05*	**0.38**	0.20	0.2	---	---	1100	1.80E+02
Benz[a]anthracene	c, nv	<1 (ND)	*1*	**0.14**	*0.05*	**0.062**	*0.05*	**0.082**	*0.05*	<0.05 (ND)	*0.05*	**0.14**	**0.10**	0.0018	---	---	0.078	2.90E-02
Chrysene	nc, nv	<1 (ND)	*1*	**0.30**	*0.05*	**0.018**	*0.05*	**0.18**	*0.05*	<0.05 (ND)	*0.05*	**0.30**	**0.10**	0.0018	---	---	7.8	2.9
Benzo[b]fluoranthene	nc, v	<1 (ND)	*1*	**0.26**	*0.05*	**0.16**	*0.05*	**0.13**	*0.05*	<0.05 (ND)	*0.05*	**0.26**	**0.15**	0.0018	---	---	0.078	2.90E-02
Benzo[k]fluoranthene	c, nv	<1 (ND)	*1*	**0.081**	*0.05*	**0.057**	*0.05*	<0.05 (ND)	*0.05*	<0.05 (ND)	*0.05*	**0.081**	**0.07**	0.0018	---	---	0.78	2.90E-01
Benzo[a]pyrene	c, nv	<1 (ND)	*1*	**0.15**	*0.05*	**0.067**	*0.05*	**0.056**	*0.05*	<0.05 (ND)	*0.05*	**0.15**	**0.09**	0.0018	---	---	0.0078	2.90E-03
Indeno[1,2,3-cd]pyrene	c, nv	<1 (ND)	*1*	**0.15**	*0.05*	**0.080**	*0.05*	**0.056**	*0.05*	<0.05 (ND)	*0.05*	**0.15**	**0.10**	0.0018	---	---	0.078	2.90E-02
Benzo[g,h,i]perylene	nc, nv	<1 (ND)	*1*	0.15	*0.05*	0.091	*0.05*	0.060	*0.05*	<0.05 (ND) jl	*0.05*	0.15	0.10	0.2	---	---	---	---
Total PAHs (detected)				3.044		1.135		2.091		0.229								
Metals																		
Cadmium	c, nv	<1 (ND)	*1*	**1.34**	*1*	**0.80**	*0.1*	**0.86**	*0.2*	<1 (ND)	*1*	**1.34**	**0.75**	0.094	<1	---	---	1.80E+01
Chromium (total)	nc, nv	1.92	*1*	5.32	*1*	3.13	*1*	98.7	*1*	2.77	*1*	5.32	6.14	100	1	---	---	110 (2)
Copper	c, nv	**21.7**	*1*	**74.1**	*1*	**30.8**	*1*	**48.1**	*1*	**14.5**	*1*	**74.1**	32.2	2.7	9	100		1.40E+03
Lead	nc, nv	**8.84**	*1*	**25.4**	*1*	**24.2**	*1*	**14.9**	*0.5*	**6.28**	*1*	**25.4**	13.8	0.54	13.3	400		1.50E+01
Nickel	nc, nv	2.16	*1*	5.22	*1*	2.77	*1*	3.62	*1*	2.74	*1*	5.22	3.15	NE	5.5	---		7.30E+02
Zinc	nc, nv	**321**	*1*	**457**	*1*	**299**	*1*	**395**	*1*	**1520**	*1*	**1520**	483	33	38	600		1.10E+04
Total Petroleum Hydrocarbons																		
DRO	nc, nv	310	50	650	50	360 x	50	940	50	290 X	50	650	381	NE	---	10000	---	---
RRO	nc, nv	590	250	1100	250	1220	250	2000	250	<250 (ND)	250	1220	667	NE	---			

Notes:

ND = not detected at or above laboratory method reporting limits

NE = not established.

µg/L = micrograms per Liter

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

JSCS = Portland Harbor Joint Source Control Strategy, ODEQ and EPA, December 2005

x = Chromatogram pattern is not indicative of diesel

J = Sample is out of control limits, and concentration is considered an estimate

Table 4 - Summary of Analytical Data, DUST SPLP Sample

Location	Sample ID	Depth	Date	Leachable Metals					
				Cadmium	Chromium	Copper	Lead	Nickel	Zinc
				(mg/L)					
Storage Trailer, North Proeprty Margin	DUST01-100720	Surface	7/20/2010	0.55	<0.1 ND	1.05	<0.1 ND	0.11	10.0
RCRA[1] Toxicity Characteristic				1.0	5.0	---	5.0	---	---

mg/L: milligrams per Liter

[1] Resource Conservation and Recovery Act, 1976

ATTACHMENT A: PHOTOGRAPHIC LOG

Compositing a sample within a stainless steel bowl

Lifting catch basin insert to monitor thickness of sediments in the catch basin and collect sample within the filter.

Using a fork lift to lift catch basin insert

Composite samples were transferred into laboratory-supplied jars.

EVREN NORTHWEST INC. environmental natural resource consultants	**Fred Devine Diving and Salvage** 6211 N Ensign Street Portland, Oregon	**Site Photographs**	Project No. 129-08001-01 **Attachment A**

View into filter insert.

ATTACHMENT B: LABORATORY ANALYTICAL DATA

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

May 26, 2009

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 80747
Portland, OR 97280

Dear Mr. Green:

Included are the results from the testing of material submitted on May 14, 2009 from the 521-07001-03/Fred Devine, F&BI 905125 project. There are 17 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Bradley T. Benson
Chemist

Enclosures
c: Neil Woller, Mike Krzeminski
ENW0526R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 14, 2009 by Friedman & Bruya, Inc. from the Evren Northwest, Inc. 521-07001-03/Fred Devine, F&BI 905125 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest, Inc.
905125-01	OF01-090513

All quality control requirements were acceptable.

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125
Date Extracted: 05/15/09
Date Analyzed: 05/15/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND RESIDUAL RANGE USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
OF01-090513 905125-01	290 x	<250	136
Method Blank	<50	<250	126

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	OF01-090513	Client:	Evren Northwest, Inc.
Date Received:	05/14/09	Project:	521-07001-03/Fred Devine
Date Extracted:	05/15/09	Lab ID:	905125-01
Date Analyzed:	05/20/09	Data File:	052007.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benzo(a)anthracene-d12	80	50	129

Compounds:	Concentration ug/L (ppb)
Naphthalene	0.055
Acenaphthylene	<0.05
Acenaphthene	<0.05
Fluorene	<0.05
Phenanthrene	0.051
Anthracene	<0.05
Fluoranthene	0.066
Pyrene	0.057
Benz(a)anthracene	<0.05
Chrysene	<0.05
Benzo(a)pyrene	<0.05
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05 jl
Benzo(g,h,i)perylene	<0.05 jl

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	NA	Project:	521-07001-03/Fred Devine
Date Extracted:	05/15/09	Lab ID:	09659mb
Date Analyzed:	05/20/09	Data File:	052006.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	50	150
Benzo(a)anthracene-d12	77	50	129

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.05
Acenaphthylene	<0.05
Acenaphthene	<0.05
Fluorene	<0.05
Phenanthrene	<0.05
Anthracene	<0.05
Fluoranthene	<0.05
Pyrene	<0.05
Benz(a)anthracene	<0.05
Chrysene	<0.05
Benzo(a)pyrene	<0.05
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05 jl
Benzo(g,h,i)perylene	<0.05 jl

Analysis For Total Metals By EPA Method 200.8

Client ID:	OF01-090513	Client:	Evren Northwest, Inc.
Date Received:	05/14/09	Project:	521-07001-03/Fred Devine
Date Extracted:	05/15/09	Lab ID:	905125-01
Date Analyzed:	05/18/09	Data File:	905125-01.049
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	117	60	125
Indium	101	60	125
Holmium	103	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	2.77
Nickel	2.74
Copper	14.5
Zinc	1,520
Cadmium	<1
Lead	6.28

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	NA	Project:	521-07001-03/Fred Devine
Date Extracted:	05/15/09	Lab ID:	I9-199 mb
Date Analyzed:	05/18/09	Data File:	I9-199 mb.040
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	112	60	125
Indium	97	60	125
Holmium	103	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Nickel	<1
Copper	<1
Zinc	<1
Cadmium	<1
Lead	<1

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125
Date Analyzed: 05/22/09

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL SUSPENDED SOLIDS BY METHOD 2540D

Results Reported as mg/L (ppm)

Sample ID Laboratory ID	Total Suspended Solids
OF01-090513 905125-01	<10
Method Blank	<10

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	OF01-090513	Client:	Evren Northwest, Inc.
Date Received:	05/14/09	Project:	521-07001-03/Fred Devine
Date Extracted:	05/14/09	Lab ID:	905125-01
Date Analyzed:	05/15/09	Data File:	051523.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	76	27	76
Phenol-d6	37	13	58
Nitrobenzene-d5	100	55	115
2-Fluorobiphenyl	97	51	113
2,4,6-Tribromophenol	106	28	107
Terphenyl-d14	115	45	119

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<5	3-Nitroaniline	<1.5
Bis(2-chloroethyl) ether	<0.5	Acenaphthene	<0.5
2-Chlorophenol	<5	2,4-Dinitrophenol	<15
1,3-Dichlorobenzene	<0.5	Dibenzofuran	<0.5
1,4-Dichlorobenzene	<0.5	2,4-Dinitrotoluene	<0.5
1,2-Dichlorobenzene	<0.5	4-Nitrophenol	<5
Benzyl alcohol	<0.5	Diethyl phthalate	<0.5
Bis(2-chloroisopropyl) ether	<0.5	Fluorene	<0.5
2-Methylphenol	<5	4-Chlorophenyl phenyl ether	<0.5
Hexachloroethane	<0.5	N-Nitrosodiphenylamine	<0.5
N-Nitroso-di-n-propylamine	<0.5	4-Nitroaniline	<5
4-Methylphenol	<5	4,6-Dinitro-2-methylphenol	<15
Nitrobenzene	<0.5	4-Bromophenyl phenyl ether	<0.5
Isophorone	<0.5	Hexachlorobenzene	<0.5
2-Nitrophenol	<5	Pentachlorophenol	<5
2,4-Dimethylphenol	<5	Phenanthrene	<0.5
Benzoic acid	<50	Anthracene	<0.5
Bis(2-chloroethoxy)methane	<0.5	Carbazole	<0.5
2,4-Dichlorophenol	<5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.5	Fluoranthene	<0.5
Naphthalene	<0.5	Pyrene	<0.5
Hexachlorobutadiene	<0.5	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1.5	Benz(a)anthracene	<0.5
4-Chloro-3-methylphenol	<5	Chrysene	<0.5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<5
Hexachlorocyclopentadiene	<1.5	Di-n-octyl phthalate	0.90
2,4,6-Trichlorophenol	<5	Benzo(a)pyrene	<0.5
2,4,5-Trichlorophenol	<5	Benzo(b)fluoranthene	<0.5
2-Chloronaphthalene	<0.5	Benzo(k)fluoranthene	<0.5
2-Nitroaniline	<0.5	Indeno(1,2,3-cd)pyrene	<0.5
Dimethyl phthalate	<0.5	Dibenz(a,h)anthracene	<0.5
Acenaphthylene	<0.5	Benzo(g,h,i)perylene	<0.5
2,6-Dinitrotoluene	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	NA	Project:	521-07001-03/Fred Devine
Date Extracted:	05/14/09	Lab ID:	09-658mb2
Date Analyzed:	05/15/09	Data File:	051521.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	74	27	76
Phenol-d6	37	13	58
Nitrobenzene-d5	100	55	115
2-Fluorobiphenyl	97	51	113
2,4,6-Tribromophenol	94	28	107
Terphenyl-d14	120 vo	45	119

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<5	3-Nitroaniline	<1.5
Bis(2-chloroethyl) ether	<0.5	Acenaphthene	<0.5
2-Chlorophenol	<5	2,4-Dinitrophenol	<15
1,3-Dichlorobenzene	<0.5	Dibenzofuran	<0.5
1,4-Dichlorobenzene	<0.5	2,4-Dinitrotoluene	<0.5
1,2-Dichlorobenzene	<0.5	4-Nitrophenol	<5
Benzyl alcohol	<0.5	Diethyl phthalate	<0.5
Bis(2-chloroisopropyl) ether	<0.5	Fluorene	<0.5
2-Methylphenol	<5	4-Chlorophenyl phenyl ether	<0.5
Hexachloroethane	<0.5	N-Nitrosodiphenylamine	<0.5
N-Nitroso-di-n-propylamine	<0.5	4-Nitroaniline	<5
4-Methylphenol	<5	4,6-Dinitro-2-methylphenol	<15
Nitrobenzene	<0.5	4-Bromophenyl phenyl ether	<0.5
Isophorone	<0.5	Hexachlorobenzene	<0.5
2-Nitrophenol	<5	Pentachlorophenol	<5
2,4-Dimethylphenol	<5	Phenanthrene	<0.5
Benzoic acid	<50	Anthracene	<0.5
Bis(2-chloroethoxy)methane	<0.5	Carbazole	<0.5
2,4-Dichlorophenol	<5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.5	Fluoranthene	<0.5
Naphthalene	<0.5	Pyrene	<0.5
Hexachlorobutadiene	<0.5	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1.5	Benz(a)anthracene	<0.5
4-Chloro-3-methylphenol	<5	Chrysene	<0.5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<5
Hexachlorocyclopentadiene	<1.5	Di-n-octyl phthalate	<0.5
2,4,6-Trichlorophenol	<5	Benzo(a)pyrene	<0.5
2,4,5-Trichlorophenol	<5	Benzo(b)fluoranthene	<0.5
2-Chloronaphthalene	<0.5	Benzo(k)fluoranthene	<0.5
2-Nitroaniline	<0.5	Indeno(1,2,3-cd)pyrene	<0.5
Dimethyl phthalate	<0.5	Dibenz(a,h)anthracene	<0.5
Acenaphthylene	<0.5	Benzo(g,h,i)perylene	<0.5
2,6-Dinitrotoluene	<0.5		

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125
Date Extracted: 05/15/09
Date Analyzed: 05/15/09

RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR PCBs AS AROCLORS
USING EPA METHOD 8082A

Results Reported as ug/L (ppb)

	Aroclor							Surrogate
Sample ID	1221	1232	1016	1242	1248	1254	1260	(% Rec.)
Laboratory ID								(Limit 61-132)
OF01-090513	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	92
905125-01								
Method Blank	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	82

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	108	115	69-135	6

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	78	80	68-101	3
Acenaphthylene	ug/L (ppb)	5	80	81	70-109	1
Acenaphthene	ug/L (ppb)	5	80	82	69-104	2
Fluorene	ug/L (ppb)	5	80	82	68-111	2
Phenanthrene	ug/L (ppb)	5	79	81	66-106	2
Anthracene	ug/L (ppb)	5	78	80	67-112	3
Fluoranthene	ug/L (ppb)	5	81	81	69-116	0
Pyrene	ug/L (ppb)	5	80	81	68-115	1
Benz(a)anthracene	ug/L (ppb)	5	79	77	65-102	3
Chrysene	ug/L (ppb)	5	81	79	66-103	2
Benzo(b)fluoranthene	ug/L (ppb)	5	84	80	64-110	5
Benzo(k)fluoranthene	ug/L (ppb)	5	71	66	64-116	7
Benzo(a)pyrene	ug/L (ppb)	5	77	70	61-108	10
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	76	64	58-117	17
Dibenz(a,h)anthracene	ug/L (ppb)	5	67	55 vo	60-113	20
Benzo(g,h,i)perylene	ug/L (ppb)	5	68	57 vo	59-110	18

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 905114-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/L (ppb)	<1	<1	nm	0-20
Nickel	ug/L (ppb)	<1	<1	nm	0-20
Copper	ug/L (ppb)	25.0	24.5	2	0-20
Zinc	ug/L (ppb)	22.7	20.9	8	0-20
Cadmium	ug/L (ppb)	<1	<1	nm	0-20
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 905114-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	ug/L (ppb)	20	<1	107	50-150
Nickel	ug/L (ppb)	20	<1	104	50-150
Copper	ug/L (ppb)	20	25.0	109 b	50-150
Zinc	ug/L (ppb)	50	22.7	99 b	50-150
Cadmium	ug/L (ppb)	5	<1	109	50-150
Lead	ug/L (ppb)	10	<1	107	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	ug/L (ppb)	20	106	70-130
Nickel	ug/L (ppb)	20	102	70-130
Copper	ug/L (ppb)	20	104	70-130
Zinc	ug/L (ppb)	50	101	70-130
Cadmium	ug/L (ppb)	5	107	70-130
Lead	ug/L (ppb)	10	109	70-130

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL SUSPENDED SOLIDS BY METHOD 2540D

Laboratory Code: 905125-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
TSS	mg/L	<10	<10	nm	0-20

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
TSS	mg/L	50	85	67-128

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
N-Nitrosodimethylamine	ug/L (ppb)	50	53	58	40-75	9
Phenol	ug/L (ppb)	75	30	36	18-54	18
Bis(2-chloroethyl) ether	ug/L (ppb)	50	88	90	29-124	2
2-Chlorophenol	ug/L (ppb)	75	88	98	43-101	11
1,3-Dichlorobenzene	ug/L (ppb)	50	94	96	50-109	2
1,4-Dichlorobenzene	ug/L (ppb)	50	88	89	45-103	1
1,2-Dichlorobenzene	ug/L (ppb)	50	84	85	50-112	1
Bis(2-chloroisopropyl) ether	ug/L (ppb)	50	86	87	46-110	1
Hexachloroethane	ug/L (ppb)	50	90	89	46-114	1
N-Nitroso-di-n-propylamine	ug/L (ppb)	50	93	94	45-114	1
4-Methylphenol	ug/L (ppb)	75	66	78	31-91	17
Nitrobenzene	ug/L (ppb)	50	95	98	50-111	3
Isophorone	ug/L (ppb)	50	99	100	52-120	1
2,4-Dimethylphenol	ug/L (ppb)	75	74	82	38-94	10
Bis(2-chloroethoxy)methane	ug/L (ppb)	50	94	97	48-110	3
1,2,4-Trichlorobenzene	ug/L (ppb)	50	94	94	45-110	0
Hexachlorobutadiene	ug/L (ppb)	50	88	87	35-120	1
4-Chloro-3-methylphenol	ug/L (ppb)	75	89	99	46-107	11
2-Methylnaphthalene	ug/L (ppb)	50	100	103	41-133	3
Hexachlorocyclopentadiene	ug/L (ppb)	100	91	95	26-99	4
2,4,6-Trichlorophenol	ug/L (ppb)	75	101	109 vo	43-105	8
2-Chloronaphthalene	ug/L (ppb)	50	93	97	53-111	4
Dimethyl phthalate	ug/L (ppb)	50	111	116 vo	53-114	4
2,6-Dinitrotoluene	ug/L (ppb)	50	97	100	48-117	3
Acenaphthene	ug/L (ppb)	50	90	96	41-114	6
2,4-Dinitrotoluene	ug/L (ppb)	50	97	101	46-119	4
4-Nitrophenol	ug/L (ppb)	75	37	46	15-66	22 vo
Diethyl phthalate	ug/L (ppb)	50	104	109	55-115	5
4-Chlorophenyl phenyl ether	ug/L (ppb)	50	85	90	54-115	6
1,2-Diphenylhydrazine	ug/L (ppb)	50	91	94	58-113	3
N-Nitrosodiphenylamine	ug/L (ppb)	50	73	75	22-133	3
4-Bromophenyl phenyl ether	ug/L (ppb)	50	92	96	54-113	4
Hexachlorobenzene	ug/L (ppb)	50	91	94	37-110	3
Pentachlorophenol	ug/L (ppb)	75	86	92	39-126	7
Carbazole	ug/L (ppb)	50	92	95	38-162	3
Di-n-butyl phthalate	ug/L (ppb)	50	98	102	53-113	4
Pyrene	ug/L (ppb)	50	120 vo	126 vo	35-115	5
Benzyl butyl phthalate	ug/L (ppb)	50	126	132	24-132	5
Chrysene	ug/L (ppb)	50	114	121	39-126	6
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	50	126	133	37-134	5
Di-n-octyl phthalate	ug/L (ppb)	50	107	113	46-132	5

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	81	94	52-135	15
Aroclor 1260	ug/L (ppb)	2.5	97	103	60-128	6

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

905125

SAMPLE CHAIN OF CUSTODY ME 5/14/09 BI4

Page # 1 of 1

Send Report To LYNN D. GREEN

Company EVREN NORTHWEST, INC.

Address PO BOX 80747

City, State, ZIP PORTLAND, OR 97280-1747

Phone # (503)452-5561 Fax # (503)452-7669

SAMPLERS (signature)

PROJECT NAME/NO. 521-07001-03 / FRED DEHNE

PO # 521-07001-03

REMARKS
See Project List for Continents
- High Resolution - SVOCs - PCBs

TURNAROUND TIME:
X Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL:
Dispose after 30 days
Return samples
Will call with instructions

SAMPLE ID	LAB ID	DATE	TIME	SAMPLE TYPE	# OF CONTAINERS	ANALYSES REQUESTED: TPH-HCID	TPH-GX	TPH-DX	BTEX	RBDM VOCS	VOCS (8260)	PAHS (SIM)	PCBS	METALS: Pb, Ni, Zn	RCRA METALS	SVOCS (8270)	TSS						NOTES
OF01-090513	01A-M	5-13-09	1235	Comp	13			X					+	+		X	X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Lynn Green	Evn	13-MY'09	1501
Received by:	HONG NGUYEN	FBI	5/14/09	9:30 ~~10:00~~
Relinquished by:				
Received by:				

Sample at 3 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

May 28, 2009

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 80747
Portland, OR 97280

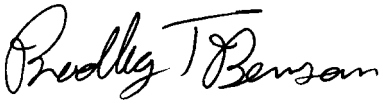
Dear Mr. Green:

Included is the amended report from the testing of material submitted on May 14, 2009 from the 521-07001-03/Fred Devine, F&BI 905125 project. Per your request, the aroclor 1262 was added to the report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Bradley T. Benson
Chemist

Enclosures
c: Neil Woller, Mike Krzeminski
ENW0526R.DOC

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125
Date Extracted: 05/15/09
Date Analyzed: 05/15/09

RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR PCBs AS AROCLORS
USING EPA METHOD 8082A

Results Reported as ug/L (ppb)

	Aroclor								Surrogate
Sample ID	1221	1232	1016	1242	1248	1254	1260	1262	(% Rec.)
Laboratory ID									(Limit 61-132)
OF01-090513	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	92
905125-01									
Method Blank	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	82

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

April 27, 2010

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

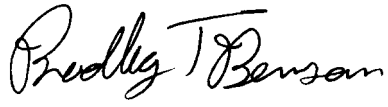
Dear Mr. Green:

Included are the results from the testing of material submitted on April 16, 2010 from the 521-07001-02/Fred Devine Salvage, F&BI 004165 project. There are 14 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Bradley T. Benson
Chemist

Enclosures
c: Neil Woller
ENW0427R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 16, 2010 by Friedman & Bruya, Inc. from the Evren Northwest, Inc. 521-07001-02/Fred Devine Salvage, F&BI 004165 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest, Inc.
004165-01	COMP01-CB1-3-100415
004165-02	COMP02-CB4-6-100415

The diesel detections are due to carryover from the residual range material.

The samples were sent to Amtest for grain size analysis. The report generated by AR will be forwarded to your office upon receipt.

All quality control requirements were acceptable.

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165
Date Extracted: 04/16/10
Date Analyzed: 04/16/10 and 04/17/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND RESIDUAL RANGE USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Residual Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
COMP01-CB1-3-100415 004165-01	4,500 x	9,000	110
COMP02-CB4-6-100415 004165-02	4,400 x	12,000	109
Method Blank 00-0560 MB	<50	<250	102

Analysis For Total Metals By EPA Method 200.8

Client ID:	COMP01-CB1-3-100415	Client:	Evren Northwest, Inc.
Date Received:	04/16/10	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	004165-01
Date Analyzed:	04/20/10	Data File:	004165-01.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	91	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	43.0
Copper	193
Zinc	455
Cadmium	3.84
Lead	92.6

Analysis For Total Metals By EPA Method 200.8

Client ID:	COMP02-CB4-6-100415	Client:	Evren Northwest, Inc.
Date Received:	04/16/10	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	004165-02
Date Analyzed:	04/20/10	Data File:	004165-02.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	92	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	54.6
Copper	278
Zinc	636
Cadmium	5.03
Lead	152

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	NA	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	I0-197 mb
Date Analyzed:	04/20/10	Data File:	I0-197 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125
Indium	93	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<0.02
Copper	<0.02
Zinc	<0.02
Cadmium	<0.02
Lead	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	COMP01-CB1-3-100415	Client:	Evren Northwest, Inc.
Date Received:	04/16/10	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	004165-01 1/100
Date Analyzed:	04/20/10	Data File:	042007.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	72	50	150
Benzo(a)anthracene-d12	132	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.2
Acenaphthylene	<0.2
Acenaphthene	<0.2
Fluorene	<0.2
Phenanthrene	1.6
Anthracene	0.59
Fluoranthene	4.1
Pyrene	2.8
Benz(a)anthracene	0.90
Chrysene	2.4
Benzo(a)pyrene	0.68
Benzo(b)fluoranthene	2.0
Benzo(k)fluoranthene	0.57
Indeno(1,2,3-cd)pyrene	0.69
Dibenz(a,h)anthracene	<0.2
Benzo(g,h,i)perylene	0.55

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	COMP02-CB4-6-100415	Client:	Evren Northwest, Inc.
Date Received:	04/16/10	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	004165-02 1/100
Date Analyzed:	04/20/10	Data File:	042008.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	117	50	150
Benzo(a)anthracene-d12	121	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.22
Acenaphthylene	<0.2
Acenaphthene	0.60
Fluorene	1.3
Phenanthrene	12
Anthracene	2.3
Fluoranthene	28
Pyrene	17
Benz(a)anthracene	3.9
Chrysene	11
Benzo(a)pyrene	2.0
Benzo(b)fluoranthene	7.9
Benzo(k)fluoranthene	2.5
Indeno(1,2,3-cd)pyrene	1.8
Dibenz(a,h)anthracene	0.30
Benzo(g,h,i)perylene	1.4

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	Not Applicable	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	00-568 mb
Date Analyzed:	04/20/10	Data File:	042005.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	75	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.002
Acenaphthylene	<0.002
Acenaphthene	<0.002
Fluorene	<0.002
Phenanthrene	<0.002
Anthracene	<0.002
Fluoranthene	<0.002
Pyrene	<0.002
Benz(a)anthracene	<0.002
Chrysene	<0.002
Benzo(a)pyrene	<0.002
Benzo(b)fluoranthene	<0.002
Benzo(k)fluoranthene	<0.002
Indeno(1,2,3-cd)pyrene	<0.002
Dibenz(a,h)anthracene	<0.002
Benzo(g,h,i)perylene	<0.002

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165
Date Extracted: 04/16/10
Date Analyzed: 04/19/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR PCBs REPORTED AS AROCLORS USING EPA METHOD 8082A

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Aroclor 1221	1232	1016	1242	1248	1254	1260	Surrogate (% Rec.) (Limit 50-150)
COMP01-CB1-3-100415 004165-01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	78
COMP02-CB4-6-100415 004165-02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	88
Method Blank	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	110

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 004172-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	119	118	63-146	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	106	79-144

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 004170-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	7.84	91	93	51-132	2
Copper	mg/kg (ppm)	50	5.94	90	93	53-123	3
Zinc	mg/kg (ppm)	50	13.0	92 b	95 b	40-135	3
Cadmium	mg/kg (ppm)	10	<1	102	101	83-120	1
Lead	mg/kg (ppm)	20	6.24	104 b	101 b	65-126	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	99	79-125
Copper	mg/kg (ppm)	50	99	86-114
Zinc	mg/kg (ppm)	50	99	79-120
Cadmium	mg/kg (ppm)	10	103	89-116
Lead	mg/kg (ppm)	20	104	81-120

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	83	72-112
Acenaphthylene	mg/kg (ppm)	0.17	83	63-110
Acenaphthene	mg/kg (ppm)	0.17	82	70-111
Fluorene	mg/kg (ppm)	0.17	90	69-110
Phenanthrene	mg/kg (ppm)	0.17	81	68-111
Anthracene	mg/kg (ppm)	0.17	75	67-110
Fluoranthene	mg/kg (ppm)	0.17	93	62-114
Pyrene	mg/kg (ppm)	0.17	91	61-114
Benz(a)anthracene	mg/kg (ppm)	0.17	78	58-108
Chrysene	mg/kg (ppm)	0.17	78	61-112
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	90	54-119
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	88	61-123
Benzo(a)pyrene	mg/kg (ppm)	0.17	78	52-112
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	80	44-133
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	79	57-119
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	76	60-116

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 004138-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	<0.1	<0.1	nm
Aroclor 1260	mg/kg (ppm)	<0.1	<0.1	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	98	101	60-142	3
Aroclor 1260	mg/kg (ppm)	0.8	95	99	63-144	4

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

004165

SAMPLE CHAIN OF CUSTODY

ME 04-16-10

BI3

Page # 1 of 1

Send Report To: LYNN D. GREEN

Company: EVREN NORTHWEST, INC.

Address: PO BOX 80747

City, State, ZIP: PORTLAND, OR 97280-1747

Phone #: (503)452-5561 Fax #: (503)452-7669

SAMPLERS (signature):

PROJECT NAME/NO.: 521-0701-02 / FRED DEVINE SALVAGE

PO #: 521-0701-02

REMARKS: BRAD: PLEASE PHONE LYNN REGARDING TIME TESTING OF THESE SAMPLES! THANKS.

TURNAROUND TIME
- Standard (2 Weeks)
- RUSH per BRAD
- Rush charges authorized by:

SAMPLE DISPOSAL
- Dispose after 30 days
- Return samples
- Will call with instructions

SAMPLE ID	LAB ID	DATE	TIME	SAMPLE TYPE	# OF CONTAINERS	ANALYSES REQUESTED: TPH-HCID	TPH-GX	TPH-DX	BTEX	R8DM VOCS	VOCS (8260)	PAHS (SIM)	PCBs Hi-Rs	METALS	RCRA METALS	PAHs Hi-SVOCs (8270) Rs	Memus: Calcium Pb-Zn	Grain-size					NOTES
Compo1-CB1-3-100415	01A-E	4-15-10	1135	Soil	6			X					X			X	X	X					
Compo2-CB16-100415	02A-E	4-15-10	1053	Soil	6			X					X			X	X	X					

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by	N. MURLO	EVN	4-15-10	1305
Received by	Nhan Phan	FeBI	4/15/10	0920
Relinquished by				
Received by				

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

AMTEST LABORATORIES

Professional Analytical Services

Jun 16 2010
Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Attention: Michael Erdahl

Dear Michael Erdahl:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
Comp01-CB1-3-100415	Soil	10-A006287	CONV, GRAIN SIZE
Comp02-CB4-6-100415	Soil	10-A006288	CONV, GRAIN SIZE

Your samples were received on Monday, April 19, 2010. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Method Detection Limits (MDL's), as opposed to Practical Quantitation Limits (PQL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,

Aaron W. Young
Laboratory Manager

Project #: 004165
PO Number: A-386

BACT = Bacteriological
CONV = Conventionals
TC=Total Coliforms
MET = Metals
ORG = Organics
NUT=Nutrients
DEM=Demand
MIN=Minerals
APC=Aerobic Plate Count

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com

AMTEST LABORATORIES

Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Attention: Michael Erdahl
Project #: 004165
PO Number: A-386

Date Received: 04/19/10
Date Reported: 6/16/10

AMTEST Identification Number 10-A006287
Client Identification Comp01-CB1-3-100415
Sampling Date 04/15/10
All results reported on a dry weight basis.

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	52.1	%		0.01	SM 2540G	MO	04/20/10

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	0.30 %	GRAVEL	3.00	ASTM D422	MO	05/27/10
- 2	4.00	0.30 %			ASTM D422	MO	05/27/10
-1	2.00	2.40 %			ASTM D422	MO	05/27/10
0	1.00	3.40 %	SAND	21.1	ASTM D422	MO	05/27/10
+1	0.50	4.20 %			ASTM D422	MO	05/27/10
+ 2	0.25	3.90 %			ASTM D422	MO	05/27/10
+ 3	0.125	4.40 %			ASTM D422	MO	05/27/10
+ 4	0.063	5.20 %			ASTM D422	MO	05/27/10
+ 5	0.032	58.2 %	SILT	69.8	ASTM D422	MO	05/27/10
+ 6	0.016	2.90 %			ASTM D422	MO	05/27/10
+ 7	0.008	3.10 %			ASTM D422	MO	05/27/10
+ 8	0.004	5.60 %			ASTM D422	MO	05/27/10
+ 9	0.002	1.20 %	CLAY	6.00	ASTM D422	MO	05/27/10
+ 10	0.001	< 0.1 %			ASTM D422	MO	05/27/10
> + 10	< 0.001	4.80 %			ASTM D422	MO	05/27/10

Aaron W. Young
Laboratory Manager

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com

AMTEST LABORATORIES

Professional Analytical Services

ANALYSIS REPORT

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Attention: Michael Erdahl
Project #: 004165
PO Number: A-386

Date Received: 04/19/10
Date Reported: 6/16/10

AMTEST Identification Number 10-A006288
Client Identification Comp02-CB4-6-100415
Sampling Date 04/15/10
All results reported on a dry weight basis.

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	37.8	%		0.01	SM 2540G	MO	04/20/10

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	9.50 %	GRAVEL	14.4	ASTM D422	MO	05/27/10
- 2	4.00	0.20 %			ASTM D422	MO	05/27/10
-1	2.00	4.70 %			ASTM D422	MO	05/27/10
0	1.00	9.00 %	SAND	59.2	ASTM D422	MO	05/27/10
+1	0.50	10.3 %			ASTM D422	MO	05/27/10
+ 2	0.25	12.5 %			ASTM D422	MO	05/27/10
+ 3	0.125	13.6 %			ASTM D422	MO	05/27/10
+ 4	0.063	13.8 %			ASTM D422	MO	05/27/10
+ 5	0.032	18.4 %	SILT	22.1	ASTM D422	MO	05/27/10
+ 6	0.016	< 0.1 %			ASTM D422	MO	05/27/10
+ 7	0.008	2.60 %			ASTM D422	MO	05/27/10
+ 8	0.004	1.10 %			ASTM D422	MO	05/27/10
+ 9	0.002	1.20 %	CLAY	4.30	ASTM D422	MO	05/27/10
+ 10	0.001	0.70 %			ASTM D422	MO	05/27/10
> + 10	< 0.001	2.40 %			ASTM D422	MO	05/27/10

Aaron W. Young
Laboratory Manager

AMTEST
LABORATORIES

QC Summary for sample numbers: 10-A006287 to 10-A006288

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
10-A006287		%	0.30	0.20	40.
10-A006287	- 2	%	0.30	0.20	40.
10-A006287	-1	%	2.40	1.90	23.
10-A006287	0	%	3.40	3.60	5.7
10-A006287	+1	%	4.20	3.50	18.
10-A006287	+ 2	%	3.90	5.10	27.
10-A006287	+ 3	%	4.40	5.50	22.
10-A006287	+ 4	%	5.20	4.40	17.
10-A006287	+ 5	%	58.2	57.7	0.86
10-A006287	+ 6	%	2.90	4.10	34.
10-A006287	+ 7	%	3.10	2.10	38.
10-A006287	+ 8	%	5.60	5.60	0.00
10-A006287	+ 9	%	1.20	1.20	0.00
10-A006287	+ 10	%	< 0.1	< 0.1	
10-A006287	> + 10	%	4.80	4.80	0.00

ATTACHMENT C: ELECTRONIC DATA DISK

ATTACHMENT D: FIELD SAMPLING DATA SHEETS

FIELD SAMPLING DATA SHEET

EVREN NORTHWEST INC.
environmental / natural resource consultants

PO Box 80747
Portland, Oregon, 97280-1747
503-452-5561 Fax: 503-452-7669

Office: (503) 692-8118 Fax: (503) 885-9702

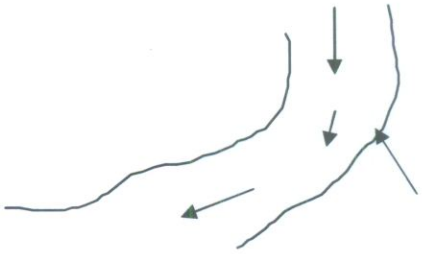
PROJECT NAME: FDP : S 521-07001-02 **LOCATION:** SP01

SITE ADDRESS: **LABEL CODE:**

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE:	°F ~60.	°C

SAMPLE LOCATION DESCRIPTION

SP01 - MANHOLE
- WATER SL TURBID



§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL		Preservative [circle]	Ice	Filter	pH	√
VOA Glass	/ /	:		3	40 ml	HCl	YES	NO		
Amber Glass	5/20/08	7:05	G	9	250, 500, 1L	(None) (HCl) (H_2SO_4)	YES	NO		√
White Poly	5/20/08	7:05	G	1	250, 500, 1L	HCl None	YES	NO	NA	√
Yellow Poly	/ /	:			250, 500, 1L	H_2SO_4	YES	NO		
Green Poly	/ /	:			250, 500, 1L	NaOH	YES	NO		
Red Total Poly	5/20/08	7:05	G	1	250, 500, 1L	HNO_3	YES	NO		√
Red Diss. Poly	/ /	:			250, 500, 1L	HNO_3	YES	YES		
	/ /	:			250, 500, 1L		YES			

White no acid, Yellow H2SO4, Red HNO3 — Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
	VOA - Glass	(8010) (8010/8020) (8020) (8240) (8260) (BTEX) (TPH-G) (BTEX/TPH-G) OR [√] WA [ ]
	AMBER - Glass	(PAH) (TPH-HCID) (TPH-D) (TPH-418.1) (Oil &Grease) OR [√] WA [ ]
	WHITE - Poly	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO_3/CO_3) (Cl) (SO_4) (NO_3) (NO_2) (F)
	YELLOW - Poly	(COD) (TOC) (Total PO_4) (Total Keldahl Nitrogen) (NH4) (NO_3/NO_2)
	GREEN - Poly	(Cyanide)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na)
	RED DISSOLVED - Poly	(As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)

WATER QUALITY DATA Purge Start Time: : ORP Pump/Bailer Inlet Depth:

Meas.	~~Method~~ §	Purged (gal)	pH	E Cond (µS)	°F Temp °C	Other	Diss O_2 (mg/l)	Water Quality
4	TIME	.	.		.		.	
3		.	.		.		.	
2		.	.		.		.	
1		.	.		.		.	
0	0745	0.00	7.39	33	15.16	554	5.73	SL TURBID

[Casing] [Select A-G] [Cumulative Totals] [Circle units] [Clarity, Color]

SAMPLER: Lynn Green (PRINTED NAME) (SIGNATURE)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

April 27, 2010

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

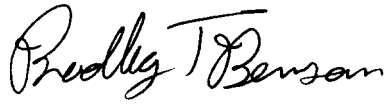
Dear Mr. Green:

Included are the results from the testing of material submitted on April 16, 2010 from the 521-07001-02/Fred Devine Salvage, F&BI 004165 project. There are 14 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Bradley T. Benson
Chemist

Enclosures
c: Neil Woller
ENW0427R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 16, 2010 by Friedman & Bruya, Inc. from the Evren Northwest, Inc. 521-07001-02/Fred Devine Salvage, F&BI 004165 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest, Inc.
004165-01	COMP01-CB1-3-100415
004165-02	COMP02-CB4-6-100415

The diesel detections are due to carryover from the residual range material.

The samples were sent to Amtest for grain size analysis. The report generated by AR will be forwarded to your office upon receipt.

All quality control requirements were acceptable.

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165
Date Extracted: 04/16/10
Date Analyzed: 04/16/10 and 04/17/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND RESIDUAL RANGE USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Residual Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
COMP01-CB1-3-100415 004165-01	4,500 x	9,000	110
COMP02-CB4-6-100415 004165-02	4,400 x	12,000	109
Method Blank 00-0560 MB	<50	<250	102

Analysis For Total Metals By EPA Method 200.8

Client ID:	COMP01-CB1-3-100415	Client:	Evren Northwest, Inc.
Date Received:	04/16/10	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	004165-01
Date Analyzed:	04/20/10	Data File:	004165-01.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	91	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	43.0
Copper	193
Zinc	455
Cadmium	3.84
Lead	92.6

Analysis For Total Metals By EPA Method 200.8

Client ID:	COMP02-CB4-6-100415	Client:	Evren Northwest, Inc.
Date Received:	04/16/10	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	004165-02
Date Analyzed:	04/20/10	Data File:	004165-02.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	92	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	54.6
Copper	278
Zinc	636
Cadmium	5.03
Lead	152

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	NA	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	I0-197 mb
Date Analyzed:	04/20/10	Data File:	I0-197 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125
Indium	93	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<0.02
Copper	<0.02
Zinc	<0.02
Cadmium	<0.02
Lead	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	COMP01-CB1-3-100415	Client:	Evren Northwest, Inc.
Date Received:	04/16/10	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	004165-01 1/100
Date Analyzed:	04/20/10	Data File:	042007.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	72	50	150
Benzo(a)anthracene-d12	132	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.2
Acenaphthylene	<0.2
Acenaphthene	<0.2
Fluorene	<0.2
Phenanthrene	1.6
Anthracene	0.59
Fluoranthene	4.1
Pyrene	2.8
Benz(a)anthracene	0.90
Chrysene	2.4
Benzo(a)pyrene	0.68
Benzo(b)fluoranthene	2.0
Benzo(k)fluoranthene	0.57
Indeno(1,2,3-cd)pyrene	0.69
Dibenz(a,h)anthracene	<0.2
Benzo(g,h,i)perylene	0.55

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	COMP02-CB4-6-100415	Client:	Evren Northwest, Inc.
Date Received:	04/16/10	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	004165-02 1/100
Date Analyzed:	04/20/10	Data File:	042008.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	117	50	150
Benzo(a)anthracene-d12	121	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.22
Acenaphthylene	<0.2
Acenaphthene	0.60
Fluorene	1.3
Phenanthrene	12
Anthracene	2.3
Fluoranthene	28
Pyrene	17
Benz(a)anthracene	3.9
Chrysene	11
Benzo(a)pyrene	2.0
Benzo(b)fluoranthene	7.9
Benzo(k)fluoranthene	2.5
Indeno(1,2,3-cd)pyrene	1.8
Dibenz(a,h)anthracene	0.30
Benzo(g,h,i)perylene	1.4

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	Not Applicable	Project:	521-07001-02/Fred Devine Salvage
Date Extracted:	04/19/10	Lab ID:	00-568 mb
Date Analyzed:	04/20/10	Data File:	042005.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	75	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.002
Acenaphthylene	<0.002
Acenaphthene	<0.002
Fluorene	<0.002
Phenanthrene	<0.002
Anthracene	<0.002
Fluoranthene	<0.002
Pyrene	<0.002
Benz(a)anthracene	<0.002
Chrysene	<0.002
Benzo(a)pyrene	<0.002
Benzo(b)fluoranthene	<0.002
Benzo(k)fluoranthene	<0.002
Indeno(1,2,3-cd)pyrene	<0.002
Dibenz(a,h)anthracene	<0.002
Benzo(g,h,i)perylene	<0.002

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165
Date Extracted: 04/16/10
Date Analyzed: 04/19/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR PCBs REPORTED AS AROCLORS USING EPA METHOD 8082A

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Aroclor 1221	1232	1016	1242	1248	1254	1260	Surrogate (% Rec.) (Limit 50-150)
COMP01-CB1-3-100415 004165-01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	78
COMP02-CB4-6-100415 004165-02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	88
Method Blank	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	110

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 004172-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	119	118	63-146	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	106	79-144

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 004170-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	7.84	91	93	51-132	2
Copper	mg/kg (ppm)	50	5.94	90	93	53-123	3
Zinc	mg/kg (ppm)	50	13.0	92 b	95 b	40-135	3
Cadmium	mg/kg (ppm)	10	<1	102	101	83-120	1
Lead	mg/kg (ppm)	20	6.24	104 b	101 b	65-126	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	99	79-125
Copper	mg/kg (ppm)	50	99	86-114
Zinc	mg/kg (ppm)	50	99	79-120
Cadmium	mg/kg (ppm)	10	103	89-116
Lead	mg/kg (ppm)	20	104	81-120

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	83	72-112
Acenaphthylene	mg/kg (ppm)	0.17	83	63-110
Acenaphthene	mg/kg (ppm)	0.17	82	70-111
Fluorene	mg/kg (ppm)	0.17	90	69-110
Phenanthrene	mg/kg (ppm)	0.17	81	68-111
Anthracene	mg/kg (ppm)	0.17	75	67-110
Fluoranthene	mg/kg (ppm)	0.17	93	62-114
Pyrene	mg/kg (ppm)	0.17	91	61-114
Benz(a)anthracene	mg/kg (ppm)	0.17	78	58-108
Chrysene	mg/kg (ppm)	0.17	78	61-112
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	90	54-119
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	88	61-123
Benzo(a)pyrene	mg/kg (ppm)	0.17	78	52-112
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	80	44-133
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	79	57-119
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	76	60-116

Date of Report: 04/27/10
Date Received: 04/16/10
Project: 521-07001-02/Fred Devine Salvage, F&BI 004165

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 004138-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	<0.1	<0.1	nm
Aroclor 1260	mg/kg (ppm)	<0.1	<0.1	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	98	101	60-142	3
Aroclor 1260	mg/kg (ppm)	0.8	95	99	63-144	4

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

004165

SAMPLE CHAIN OF CUSTODY

ME 04-16-10

BI3

Page # 1 of 1

Send Report To: LYNN D. GREEN

Company: EVREN NORTHWEST, INC.

Address: PO BOX 80747

City, State, ZIP: PORTLAND, OR 97280-1747

Phone #: (503)452-5561 Fax #: (503)452-7669

SAMPLERS (signature):

PROJECT NAME/NO.: 521-0701-02 / FRED DEVINE SALVAGE

PO #: 521-0701-02

REMARKS: BRAD: PLEASE PHONE LYNN REGARDING TIME TESTING OF THESE SAMPLES! THANKS.

TURNAROUND TIME
- Standard (2 Weeks)
- RUSH per BRAD
- Rush charges authorized by:

SAMPLE DISPOSAL
- Dispose after 30 days
- Return samples
- Will call with instructions

SAMPLE ID	LAB ID	DATE	TIME	SAMPLE TYPE	# OF CONTAINERS	ANALYSES REQUESTED: TPH-HCID	TPH-GX	TPH-DX	BTEX	R8DM VOCS	VOCS (8260)	PAHS (SIM)	PCBs Hi-Rs	METALS	RCRA METALS	PAHs Hi-SVOCs (8270) Rs	Memus: Calcium Pb-Zn	Grain-size					NOTES
Compo1-CB1-3-100415	01A-E	4-15-10	1135	Soil	6			X					X			X	X	X					
Compo2-CB16-100415	02A-E	4-15-10	1053	Soil	6			X					X			X	X	X					

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by	N. MURLO	EVN	4-15-10	1305
Received by	Nhan Phan	FeBI	4/15/10	0920
Relinquished by				
Received by				

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

May 28, 2009

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 80747
Portland, OR 97280

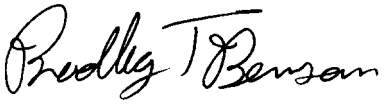
Dear Mr. Green:

Included is the amended report from the testing of material submitted on May 14, 2009 from the 521-07001-03/Fred Devine, F&BI 905125 project. Per your request, the aroclor 1262 was added to the report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Bradley T. Benson
Chemist

Enclosures
c: Neil Woller, Mike Krzeminski
ENW0526R.DOC

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125
Date Extracted: 05/15/09
Date Analyzed: 05/15/09

RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR PCBs AS AROCLORS
USING EPA METHOD 8082A

Results Reported as ug/L (ppb)

	Aroclor								Surrogate
Sample ID	1221	1232	1016	1242	1248	1254	1260	1262	(% Rec.)
Laboratory ID									(Limit 61-132)
OF01-090513	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	92
905125-01									
Method Blank	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	82

905125

SAMPLE CHAIN OF CUSTODY ME 5/14/09 BI4

Page # 1 of 1

Send Report To LYNN D. GREEN

Company EVREN NORTHWEST, INC.

Address PO BOX 80747

City, State, ZIP PORTLAND, OR 97280-1747

Phone # (503)452-5561 Fax # (503)452-7669

SAMPLERS (signature)

PROJECT NAME/NO. 521-07001-03 / FRED DEHNE

PO # 521-07001-03

REMARKS
See Project List for Continents
- High Resolution - SVOCs - PCBs

TURNAROUND TIME:
X Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL:
Dispose after 30 days
Return samples
Will call with instructions

SAMPLE ID	LAB ID	DATE	TIME	SAMPLE TYPE	# OF CONTAINERS	ANALYSES REQUESTED: TPH-HCID	TPH-GX	TPH-DX	BTEX	RBDM VOCS	VOCS (8260)	PAHS (SIM)	PCBS	METALS: Pb, Ni, Zn	RCRA METALS	SVOCS (8270)	TSS						NOTES
OF01-090513	01A-M	5-13-09	1235	Comp	13			X					+	+		X	X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Lynn Green	Evn	13-MY'09	1501
Received by:	HONG NGUYEN	FBI	5/14/09	9:30 ~~10:00~~
Relinquished by:				
Received by:				

Sample at 3 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

May 26, 2009

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 80747
Portland, OR 97280

Dear Mr. Green:

Included are the results from the testing of material submitted on May 14, 2009 from the 521-07001-03/Fred Devine, F&BI 905125 project. There are 17 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Bradley T. Benson
Chemist

Enclosures
c: Neil Woller, Mike Krzeminski
ENW0526R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 14, 2009 by Friedman & Bruya, Inc. from the Evren Northwest, Inc. 521-07001-03/Fred Devine, F&BI 905125 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest, Inc.
905125-01	OF01-090513

All quality control requirements were acceptable.

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125
Date Extracted: 05/15/09
Date Analyzed: 05/15/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND RESIDUAL RANGE USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
OF01-090513 905125-01	290 x	<250	136
Method Blank	<50	<250	126

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	OF01-090513	Client:	Evren Northwest, Inc.
Date Received:	05/14/09	Project:	521-07001-03/Fred Devine
Date Extracted:	05/15/09	Lab ID:	905125-01
Date Analyzed:	05/20/09	Data File:	052007.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benzo(a)anthracene-d12	80	50	129

Compounds:	Concentration ug/L (ppb)
Naphthalene	0.055
Acenaphthylene	<0.05
Acenaphthene	<0.05
Fluorene	<0.05
Phenanthrene	0.051
Anthracene	<0.05
Fluoranthene	0.066
Pyrene	0.057
Benz(a)anthracene	<0.05
Chrysene	<0.05
Benzo(a)pyrene	<0.05
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05 jl
Benzo(g,h,i)perylene	<0.05 jl

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	NA	Project:	521-07001-03/Fred Devine
Date Extracted:	05/15/09	Lab ID:	09659mb
Date Analyzed:	05/20/09	Data File:	052006.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	50	150
Benzo(a)anthracene-d12	77	50	129

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.05
Acenaphthylene	<0.05
Acenaphthene	<0.05
Fluorene	<0.05
Phenanthrene	<0.05
Anthracene	<0.05
Fluoranthene	<0.05
Pyrene	<0.05
Benz(a)anthracene	<0.05
Chrysene	<0.05
Benzo(a)pyrene	<0.05
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05 jl
Benzo(g,h,i)perylene	<0.05 jl

Analysis For Total Metals By EPA Method 200.8

Client ID:	OF01-090513	Client:	Evren Northwest, Inc.
Date Received:	05/14/09	Project:	521-07001-03/Fred Devine
Date Extracted:	05/15/09	Lab ID:	905125-01
Date Analyzed:	05/18/09	Data File:	905125-01.049
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	117	60	125
Indium	101	60	125
Holmium	103	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	2.77
Nickel	2.74
Copper	14.5
Zinc	1,520
Cadmium	<1
Lead	6.28

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	NA	Project:	521-07001-03/Fred Devine
Date Extracted:	05/15/09	Lab ID:	I9-199 mb
Date Analyzed:	05/18/09	Data File:	I9-199 mb.040
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	112	60	125
Indium	97	60	125
Holmium	103	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Nickel	<1
Copper	<1
Zinc	<1
Cadmium	<1
Lead	<1

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125
Date Analyzed: 05/22/09

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL SUSPENDED SOLIDS BY METHOD 2540D

Results Reported as mg/L (ppm)

Sample ID Laboratory ID	Total Suspended Solids
OF01-090513 905125-01	<10
Method Blank	<10

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	OF01-090513	Client:	Evren Northwest, Inc.
Date Received:	05/14/09	Project:	521-07001-03/Fred Devine
Date Extracted:	05/14/09	Lab ID:	905125-01
Date Analyzed:	05/15/09	Data File:	051523.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	76	27	76
Phenol-d6	37	13	58
Nitrobenzene-d5	100	55	115
2-Fluorobiphenyl	97	51	113
2,4,6-Tribromophenol	106	28	107
Terphenyl-d14	115	45	119

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<5	3-Nitroaniline	<1.5
Bis(2-chloroethyl) ether	<0.5	Acenaphthene	<0.5
2-Chlorophenol	<5	2,4-Dinitrophenol	<15
1,3-Dichlorobenzene	<0.5	Dibenzofuran	<0.5
1,4-Dichlorobenzene	<0.5	2,4-Dinitrotoluene	<0.5
1,2-Dichlorobenzene	<0.5	4-Nitrophenol	<5
Benzyl alcohol	<0.5	Diethyl phthalate	<0.5
Bis(2-chloroisopropyl) ether	<0.5	Fluorene	<0.5
2-Methylphenol	<5	4-Chlorophenyl phenyl ether	<0.5
Hexachloroethane	<0.5	N-Nitrosodiphenylamine	<0.5
N-Nitroso-di-n-propylamine	<0.5	4-Nitroaniline	<5
4-Methylphenol	<5	4,6-Dinitro-2-methylphenol	<15
Nitrobenzene	<0.5	4-Bromophenyl phenyl ether	<0.5
Isophorone	<0.5	Hexachlorobenzene	<0.5
2-Nitrophenol	<5	Pentachlorophenol	<5
2,4-Dimethylphenol	<5	Phenanthrene	<0.5
Benzoic acid	<50	Anthracene	<0.5
Bis(2-chloroethoxy)methane	<0.5	Carbazole	<0.5
2,4-Dichlorophenol	<5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.5	Fluoranthene	<0.5
Naphthalene	<0.5	Pyrene	<0.5
Hexachlorobutadiene	<0.5	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1.5	Benz(a)anthracene	<0.5
4-Chloro-3-methylphenol	<5	Chrysene	<0.5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<5
Hexachlorocyclopentadiene	<1.5	Di-n-octyl phthalate	0.90
2,4,6-Trichlorophenol	<5	Benzo(a)pyrene	<0.5
2,4,5-Trichlorophenol	<5	Benzo(b)fluoranthene	<0.5
2-Chloronaphthalene	<0.5	Benzo(k)fluoranthene	<0.5
2-Nitroaniline	<0.5	Indeno(1,2,3-cd)pyrene	<0.5
Dimethyl phthalate	<0.5	Dibenz(a,h)anthracene	<0.5
Acenaphthylene	<0.5	Benzo(g,h,i)perylene	<0.5
2,6-Dinitrotoluene	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270D

Client Sample ID:	Method Blank	Client:	Evren Northwest, Inc.
Date Received:	NA	Project:	521-07001-03/Fred Devine
Date Extracted:	05/14/09	Lab ID:	09-658mb2
Date Analyzed:	05/15/09	Data File:	051521.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	74	27	76
Phenol-d6	37	13	58
Nitrobenzene-d5	100	55	115
2-Fluorobiphenyl	97	51	113
2,4,6-Tribromophenol	94	28	107
Terphenyl-d14	120 vo	45	119

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Phenol	<5	3-Nitroaniline	<1.5
Bis(2-chloroethyl) ether	<0.5	Acenaphthene	<0.5
2-Chlorophenol	<5	2,4-Dinitrophenol	<15
1,3-Dichlorobenzene	<0.5	Dibenzofuran	<0.5
1,4-Dichlorobenzene	<0.5	2,4-Dinitrotoluene	<0.5
1,2-Dichlorobenzene	<0.5	4-Nitrophenol	<5
Benzyl alcohol	<0.5	Diethyl phthalate	<0.5
Bis(2-chloroisopropyl) ether	<0.5	Fluorene	<0.5
2-Methylphenol	<5	4-Chlorophenyl phenyl ether	<0.5
Hexachloroethane	<0.5	N-Nitrosodiphenylamine	<0.5
N-Nitroso-di-n-propylamine	<0.5	4-Nitroaniline	<5
4-Methylphenol	<5	4,6-Dinitro-2-methylphenol	<15
Nitrobenzene	<0.5	4-Bromophenyl phenyl ether	<0.5
Isophorone	<0.5	Hexachlorobenzene	<0.5
2-Nitrophenol	<5	Pentachlorophenol	<5
2,4-Dimethylphenol	<5	Phenanthrene	<0.5
Benzoic acid	<50	Anthracene	<0.5
Bis(2-chloroethoxy)methane	<0.5	Carbazole	<0.5
2,4-Dichlorophenol	<5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.5	Fluoranthene	<0.5
Naphthalene	<0.5	Pyrene	<0.5
Hexachlorobutadiene	<0.5	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1.5	Benz(a)anthracene	<0.5
4-Chloro-3-methylphenol	<5	Chrysene	<0.5
2-Methylnaphthalene	<0.5	Bis(2-ethylhexyl) phthalate	<5
Hexachlorocyclopentadiene	<1.5	Di-n-octyl phthalate	<0.5
2,4,6-Trichlorophenol	<5	Benzo(a)pyrene	<0.5
2,4,5-Trichlorophenol	<5	Benzo(b)fluoranthene	<0.5
2-Chloronaphthalene	<0.5	Benzo(k)fluoranthene	<0.5
2-Nitroaniline	<0.5	Indeno(1,2,3-cd)pyrene	<0.5
Dimethyl phthalate	<0.5	Dibenz(a,h)anthracene	<0.5
Acenaphthylene	<0.5	Benzo(g,h,i)perylene	<0.5
2,6-Dinitrotoluene	<0.5		

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125
Date Extracted: 05/15/09
Date Analyzed: 05/15/09

RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR PCBs AS AROCLORS
USING EPA METHOD 8082A

Results Reported as ug/L (ppb)

	Aroclor							Surrogate
Sample ID	1221	1232	1016	1242	1248	1254	1260	(% Rec.)
Laboratory ID								(Limit 61-132)
OF01-090513	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	92
905125-01								
Method Blank	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	82

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	108	115	69-135	6

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	78	80	68-101	3
Acenaphthylene	ug/L (ppb)	5	80	81	70-109	1
Acenaphthene	ug/L (ppb)	5	80	82	69-104	2
Fluorene	ug/L (ppb)	5	80	82	68-111	2
Phenanthrene	ug/L (ppb)	5	79	81	66-106	2
Anthracene	ug/L (ppb)	5	78	80	67-112	3
Fluoranthene	ug/L (ppb)	5	81	81	69-116	0
Pyrene	ug/L (ppb)	5	80	81	68-115	1
Benz(a)anthracene	ug/L (ppb)	5	79	77	65-102	3
Chrysene	ug/L (ppb)	5	81	79	66-103	2
Benzo(b)fluoranthene	ug/L (ppb)	5	84	80	64-110	5
Benzo(k)fluoranthene	ug/L (ppb)	5	71	66	64-116	7
Benzo(a)pyrene	ug/L (ppb)	5	77	70	61-108	10
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	76	64	58-117	17
Dibenz(a,h)anthracene	ug/L (ppb)	5	67	55 vo	60-113	20
Benzo(g,h,i)perylene	ug/L (ppb)	5	68	57 vo	59-110	18

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 905114-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/L (ppb)	<1	<1	nm	0-20
Nickel	ug/L (ppb)	<1	<1	nm	0-20
Copper	ug/L (ppb)	25.0	24.5	2	0-20
Zinc	ug/L (ppb)	22.7	20.9	8	0-20
Cadmium	ug/L (ppb)	<1	<1	nm	0-20
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 905114-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	ug/L (ppb)	20	<1	107	50-150
Nickel	ug/L (ppb)	20	<1	104	50-150
Copper	ug/L (ppb)	20	25.0	109 b	50-150
Zinc	ug/L (ppb)	50	22.7	99 b	50-150
Cadmium	ug/L (ppb)	5	<1	109	50-150
Lead	ug/L (ppb)	10	<1	107	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	ug/L (ppb)	20	106	70-130
Nickel	ug/L (ppb)	20	102	70-130
Copper	ug/L (ppb)	20	104	70-130
Zinc	ug/L (ppb)	50	101	70-130
Cadmium	ug/L (ppb)	5	107	70-130
Lead	ug/L (ppb)	10	109	70-130

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL SUSPENDED SOLIDS BY METHOD 2540D

Laboratory Code: 905125-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
TSS	mg/L	<10	<10	nm	0-20

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
TSS	mg/L	50	85	67-128

Date of Report: 05/26/09
Date Received: 05/14/09
Project: 521-07001-03/Fred Devine, F&BI 905125

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
N-Nitrosodimethylamine	ug/L (ppb)	50	53	58	40-75	9
Phenol	ug/L (ppb)	75	30	36	18-54	18
Bis(2-chloroethyl) ether	ug/L (ppb)	50	88	90	29-124	2
2-Chlorophenol	ug/L (ppb)	75	88	98	43-101	11
1,3-Dichlorobenzene	ug/L (ppb)	50	94	96	50-109	2
1,4-Dichlorobenzene	ug/L (ppb)	50	88	89	45-103	1
1,2-Dichlorobenzene	ug/L (ppb)	50	84	85	50-112	1
Bis(2-chloroisopropyl) ether	ug/L (ppb)	50	86	87	46-110	1
Hexachloroethane	ug/L (ppb)	50	90	89	46-114	1
N-Nitroso-di-n-propylamine	ug/L (ppb)	50	93	94	45-114	1
4-Methylphenol	ug/L (ppb)	75	66	78	31-91	17
Nitrobenzene	ug/L (ppb)	50	95	98	50-111	3
Isophorone	ug/L (ppb)	50	99	100	52-120	1
2,4-Dimethylphenol	ug/L (ppb)	75	74	82	38-94	10
Bis(2-chloroethoxy)methane	ug/L (ppb)	50	94	97	48-110	3
1,2,4-Trichlorobenzene	ug/L (ppb)	50	94	94	45-110	0
Hexachlorobutadiene	ug/L (ppb)	50	88	87	35-120	1
4-Chloro-3-methylphenol	ug/L (ppb)	75	89	99	46-107	11
2-Methylnaphthalene	ug/L (ppb)	50	100	103	41-133	3
Hexachlorocyclopentadiene	ug/L (ppb)	100	91	95	26-99	4
2,4,6-Trichlorophenol	ug/L (ppb)	75	101	109 vo	43-105	8
2-Chloronaphthalene	ug/L (ppb)	50	93	97	53-111	4
Dimethyl phthalate	ug/L (ppb)	50	111	116 vo	53-114	4
2,6-Dinitrotoluene	ug/L (ppb)	50	97	100	48-117	3
Acenaphthene	ug/L (ppb)	50	90	96	41-114	6
2,4-Dinitrotoluene	ug/L (ppb)	50	97	101	46-119	4
4-Nitrophenol	ug/L (ppb)	75	37	46	15-66	22 vo
Diethyl phthalate	ug/L (ppb)	50	104	109	55-115	5
4-Chlorophenyl phenyl ether	ug/L (ppb)	50	85	90	54-115	6
1,2-Diphenylhydrazine	ug/L (ppb)	50	91	94	58-113	3
N-Nitrosodiphenylamine	ug/L (ppb)	50	73	75	22-133	3
4-Bromophenyl phenyl ether	ug/L (ppb)	50	92	96	54-113	4
Hexachlorobenzene	ug/L (ppb)	50	91	94	37-110	3
Pentachlorophenol	ug/L (ppb)	75	86	92	39-126	7
Carbazole	ug/L (ppb)	50	92	95	38-162	3
Di-n-butyl phthalate	ug/L (ppb)	50	98	102	53-113	4
Pyrene	ug/L (ppb)	50	120 vo	126 vo	35-115	5
Benzyl butyl phthalate	ug/L (ppb)	50	126	132	24-132	5
Chrysene	ug/L (ppb)	50	114	121	39-126	6
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	50	126	133	37-134	5
Di-n-octyl phthalate	ug/L (ppb)	50	107	113	46-132	5

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	2.5	81	94	52-135	15
Aroclor 1260	ug/L (ppb)	2.5	97	103	60-128	6

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.